PERIODICAL ROOM
GENERAL LIBRARY
UNIV. OF MICH.

APR 22 1940

The EDUCATIONAL RECORD

Georgia Faces Facts
TARLETON COLLIER

Henry Adams on Education
CHARLES I. GLICKSBERG

Dental Education
RAYMOND A. KENT

Class Observation
EDGAR G. JOHNSTON

APRIL 1940

THE AMERICAN COUNCIL ON EDUCATION

The EDUCATIONAL RECORD

VOLUME XXI NUMBER 2

APRIL
1940

COPYRIGHT, 1940, THE AMERICAN COUNCIL ON EDUCATION

AMERICAN COUNCIL ON EDUCATION

1939-40

ADMINISTRATION

OFFICERS

CHAIRMAN: Mark A. May, director of the Institute of Human Relations, Yale University, representing Yale University

FIRST VICE CHAIRMAN: Walter C. Weidler, dean of the School of Commerce and Administration, Ohio State University, representing the American Association of Collegiate Schools of Business

SECOND VICE CHAIRMAN: Edward B. Rooney, S.J., educational director of the Jesuit Schools in the United States, representing the American Jesuit Educational Association

SECRETARY: Ernest O. Melby, dean of the School of Education, Northwestern University, representing Northwestern University

TREASURER: Corcoran Thom, president of the American Security and Trust Company, Washington, D. C.

EXECUTIVE COMMITTEE

The Chairman and the Secretary of the American Council on Education

Until May 1942: Herman L. Donovan, president of Eastern Kentucky State Teachers College, Richmond, Kentucky, representing the Southern Association of Colleges and Secondary Schools; Herbert E. Hawkes, dean of Columbia College, Columbia University, representing Columbia University

Until May 1941: David E. Weglein, superintendent of schools, Baltimore, Maryland, representing the American Association of School Administrators; Laura Zirbes, professor of education, Ohio State University, representing the Progressive Education Association

Until May 1940: Samuel P. Capen, chancellor of the University of Buffalo, representing the Association of American Colleges; Raymond A. Kent, president of the University of Louisville, representing the University of Louisville

Ex officio: John W. Studebaker, United States Commissioner of Education

EXECUTIVE OFFICERS

GEORGE F. ZOOK, President
C. R. MANN, President Emeritus
C. S. MARSH, Vice President
EARL J. MCGRATH, Specialist in Higher Education
J. HAROLD GOLDTHORPE, Research Associate
DONALD J. SHANK, Assistant to the President
GRACE R. ONTRICH, Chief Accountant

Published Quarterly by
THE AMERICAN COUNCIL ON EDUCATION
744 Jackson Place, Washington, D. C.

50 CENTS A COPY $2.00 A YEAR

Entered as second-class matter June 8, 1932, at the Post Office at Washington, D. C., under the Act of August 24, 1912

The Educational Record

April 1940

CLARENCE STEPHEN MARSH, *Editor*

CONTENTS

CONTRIBUTORS TO THIS ISSUE		130
GEORGIA FACES FACTS	*Tarleton Collier*	131
CLASS OBSERVATION AND PROFESSIONAL GROWTH	*Edgar G. Johnston*	140
NATIONAL COORDINATION OF GUIDANCE ACTIVITIES	*Floyd W. Reeves*	148
RETREAT TO ARISTOTELIAN MEDIOCRITY	*Charles F. Hoban, Jr.*	160
HENRY ADAMS ON EDUCATION	*Charles I. Glicksberg*	177
ACCENT ON COOPERATION	*Karl W. Bigelow*	188
THE RELATION OF DENTAL EDUCATION TO THE UNIVERSITY PROGRAM	*Raymond A. Kent*	203
A RESEARCHER LOOKS AT RESEARCH	*A. C. Rosander*	220
THE NEW COPYRIGHT BILL, SENATE 3043	*Waldo G. Leland*	237
THE COUNCIL AT WORK		246
A NOTE REGARDING THE 1939 PSYCHOLOGICAL EXAMINATIONS		254

Contributors to This Issue

KARL W. BIGELOW is director of the Commission on Teacher Education of the American Council on Education. He has taught economics and sociology at Cornell, Harvard, Radcliffe, and Buffalo; for two years he was headmaster of the Park School of Buffalo. He was professor of education at Teachers College, Columbia University, from 1936 to 1938.

TARLETON COLLIER is a Georgian who has worked in Atlanta, Chicago, Washington, and New York as a newspaper writer and editor for the past twenty-five years. He now lives in Atlanta and is the consultant on the penal system for the Georgia Citizens' Fact Finding Movement and as such is a member of the committee of consultants. He is also vice chairman for Georgia of the Southern Conference on Human Welfare.

CHARLES I. GLICKSBERG is a teacher at the South Side High School, Newark, New Jersey. He was formerly connected with the Philadelphia public schools for over ten years. He has contributed many articles to periodicals in the United States, Canada, and abroad on American literature, literary criticism, and education. He is the author of *Walt Whitman and the Civil War*, published by the University of Pennsylvania Press in 1933.

CHARLES F. HOBAN, JR., is director of the Council's Motion Picture Project which is concerned with the evaluation of motion pictures in general education. Activities of the Project during the past three years have brought him in close touch with educational theory and practice throughout the country. He has taught in the Pennsylvania schools and at Duke University.

EDGAR G. JOHNSTON is associate professor of secondary education and high school visitor in the Bureau of Cooperation with Educational Institutions at the University of Michigan. As field representative of the Cooperative Study of Secondary School Standards, he visited thirty-one schools in twenty states. He has taught at the University of Missouri, Teachers College, Columbia, and Stanford University, and was principal of the University of Michigan High School from 1929 to 1939.

RAYMOND A. KENT is president of the University of Louisville and a member of the Committee on Cooperative Study in General Education of the American Council on Education; he was formerly chairman of the Council. He has taught education at the University of Minnesota and the University of Kansas and was formerly dean of the College of Liberal Arts at Northwestern University.

WALDO G. LELAND is permanent secretary and executive director of the American Council of Learned Societies. He was for many years a member of the staff of the department of historical research of the Carnegie Institution. He is chairman of the subcommittee on the Study of Copyright of the Committee on International Intellectual Cooperation, and president of the International Union of Academies.

FLOYD W. REEVES is director of the American Youth Commission. From 1933 to 1936 he was director of personnel and of the social and economic division of the Tennessee Valley Authority. In 1936 he was a member of the staff of the President's Committee on Administrative Management and since 1936 he has been chairman of the President's Advisory Committee on Education. He is professor of administration in the departments of education and political science, University of Chicago.

A. C. ROSANDER has been associated with the American Youth Commission in a research capacity for nearly three years in connection with the Maryland youth survey, the Negro youth study, and the CCC-NYA implementation study. He was formerly chief statistician of a nation-wide study made by the U. S. Bureau of Labor Statistics on the socio-economic status of urban families. He has been a research associate in both psychology and education at the University of Chicago.

The Educational Record

April 1940

Georgia Faces Facts

By TARLETON COLLIER

THE TRUE Southron remains a hotspur, still allergic to damyankee gall. Even when the head of the revered Democratic Party undertakes to suggest that the South is the nation's Economic Problem No. 1, or that its social and economic system is a sort of feudal thing, or that something should be done to raise its income level, or that among its Senators are tories who must be purged in the name of liberal thought, it is pointed out that he, after all, is a person from New York, and that the thing is none of his business.

Ruffled, a militant pride arches its back. In the last year, more energy has been expended in disputing the "Economic Problem No. 1" label than upon any coherent programs for remedy in the case.

Hence, it appears that if there is to be any concert of action for change, it must come out of suggestions and performance of native quality. It must be of the South's own perception, inspiration, and motive power. For proof, you have only to hear the acclaim and look at the success which have attended the activities of the Citizens' Fact Finding Movement of Georgia.

This is genuinely a Movement, not an organization nor a foundation nor an academic study nor the agency of any individual or interest with an axe to grind other than to know

the Truth which, indeed, as both holy ordinances and human experience have taught us, will set us free—or start the works grinding for freedom as can no other instrumentality.

It is the search by Georgians for the truth about Georgia, her society and her institutions. It is an inventory of the people, by the people, for the people, and as such it has been described by many an impressed observer as a leavening of the authentic democratic process.

The facts of the Fact Finding Movement are disseminated by a sponsoring group which includes the state organizations of Rotary, Kiwanis, Civitan, Lions, and Exchange Clubs of the men's business group; the Pilot Clubs, of the women; the Georgia Congress of Parents and Teachers; the Georgia Division, American Association of University Women; Georgia Education Association; Federated Church Women; Federation of Business and Professional Women's Clubs; Federation of Women's Clubs; League of Women Voters; Library Association; Press Association; United Georgia Farmers; and the Home Demonstration Council.

Together, they have 5,000 affiliated units and 250,000 members, who constitute a representative segment of Georgia's population, one person in twelve. Alone, each of them for years has been fostering a "project" of one sort or another, after the fashion of such organizations. The yen for a serious purpose is an incorrigible impulse that works when even the best of fellows get together.

But it was quite a shock, when at last the leaders of these groups were drawn together in the Movement, to find how the isolated projects made no pattern, were directed toward no common goal. Some of these projects were revealed as a mere smattering of good intentions rather than of appreciable deeds. Even if it had done nothing else the Citizens' Fact Finding Movement demonstrated plainly that the process of people's taking counsel together, which is the democratic process, inevitably broadens understandings and objectives, ripens philosophies. People come then to see more definitely the point of human striving. There is a point.

However, this instinct for doing things made natural and prompt the response of the organizations when it was undertaken to recruit support for the Fact Finding Movement. The recruiting began after leaders of organizations, coming together from time to time during the spring of 1937, fell into conversation about the baffling paradoxes of Georgia and the South—natural wealth and low income; traditions of culture and, too often, lack of intellectual equipment; fecundity and waste; promise and nonfulfillment.

This occurred months before the President mentioned Economic Problem No. 1. Many Southerners have talked of these things before Roosevelt.

What could be done to bridge the gap between opportunity and development? What should be done that would be effective, enduring, and worthy of a democracy, except to stir the pot of activity—activity social, economic, political, intellectual—from the bottom instead of the top, so that all the elements might become involved, so that the ferment should move the mass? Were not existing conditions, with all their factors of exploitation, regional discriminations, migrations, nonrepresentative voting, political charlatanry, lack of faith to venture home capital while foreign investments drain off wealth, inadequate support of public education, health and welfare—were not these conditions the result primarily of lack of general information concerning them? Would not a proper start be in assembling the facts and spreading them widely, appraising assets and liabilities and describing both without fear or favor, examining clearly our policies and attitudes, and making all intelligible?

The course was hit upon, the Citizens' Fact Finding Movement was conceived. In their official capacities, the leaders laid the plan before the organizations they represented, seeking the plan's endorsement and support. That support won, the Movement was under way. A formal meeting in Atlanta in August, 1937, assembling representatives of the sponsoring groups, launched it.

There was, and is, no central organization in the sense of

a formal constituted authority, no bylaws nor permanent officers, with the exception of treasurer. The Movement assumes no ordained right nor office. It is impelled simply by a number of Georgians who gather periodically around a table to talk about Georgia, her people and their needs. Each of the sponsoring groups retains its identity. Loose and democratic, the thing takes on strength from the very essence of informality. You'll never find this entity in the Red Network or any other Index Expurgatorius, as a creation of Moscow, the New Deal, or Wall Street. There simply isn't anything to shoot at. This is Georgia.

The state heads of participating groups make up a coordinating committee. Each has two alternates, one permanent, one changing each month so that participation is spread over the state. In monthly rotation these state heads serve as officers of the committee. Therefore, at each monthly meeting a different chairman presides.

The meetings, alternating between Atlanta and Macon, are assemblies for dinner, at which a consultant delivers a report. Always the consultant is a home product, a Georgian whose experience or study has given him a knowledge of the field which he has been invited by the coordinating committee to discuss. Never a politician, never a person of interests that may lead to suspicion of propaganda, or defense, or self-interest of any sort, is chosen. Nor can anybody point to a consultant as a smart-aleck interloper.

Obviously, there is a difference between hearing facts about yourself from one of those theoretical fellows or carpetbaggers or professional meddlers, on one hand, and from a neighbor, on the other. They become in the latter case not a criticism, more or less gratuitous, which you are inclined to resent automatically, but an observation with which you may or may not agree, but the spirit of which you may accept with less rancor.

Twelve subjects were selected at the start, and the monthly reports covered a year. First, as a device for establishing historical background and perspective, there was "Georgia—

Past and Present." Then followed in order "Natural Resources," "Agriculture," "Industry and Commerce," "Health," "Education," "Public Welfare," "Penal System," "Political System," "Tax System," "Federal Activity," and "Religious, Civic, and Social Forces."

After presentation at the meetings, the reports were sent out at first in mimeographed form to the 5,000 local units of the affiliated groups and to the daily and weekly newspapers. They caught on from the start, almost without promotion other than newspaper reports of the meetings.

Here, it seemed, was the answer to a general curiosity, to a yearning for dependable facts. As the demand for copies grew, after six monthly reports it was found cheaper to print them. To the original 5,000 copies were added 5,000 to fill the requests which came from individuals, groups, organizations, schools, colleges, churches, forums, students, and economists—mostly in Georgia but also in many another state.

The consultants were busy men and women in the periods following their reports. Luncheon clubs are eager for speakers, and a new note is welcome. Invitations to speak fairly showered on the report-makers. And local speakers, public affairs teachers, women's club program chairmen, and even preachers leaped to the fresh material in the reports and in the documents to which the copious bibliographies guided them. The message was spread to such an extent that it is impossible to calculate the size of the audience.

Many a group with a fancied "mission" was awakened to the knowledge that its approach had been wrong or ill-informed, that it had been missing its mark. Now it could make fresh starts, with clearer objectives.

Thus the message gets around—and, getting around, it wins results. Implementation follows as a natural consequence.

Educators will be interested in an example of the workings of this leaven of awakened interest, which shows that the long-fallow field of our schools has been revealed as fertile for the harvest of better living.

The findings, the reports, involve a fresh viewpoint: a new,

clear voice that issues from a quarter outside of textbooks and academic walls. Because they hold a reality, authenticity, and freshness, educators are quick to seize upon them. The promised example is found in a prospectus which came to this writer's hand actually in course of preparation of this article, describing plans for an institute to be held April 19 by the Georgia Teachers College at Collegeboro (near Statesboro). The head of this school's division of social sciences writes:

> For some years this institute has been devoted to stimulating our students and enlightening the laymen of this region on questions vital to Georgia.
>
> In planning this year's program, we have drawn our inspiration from the third series of reports of the Citizens' Fact Finding Movement. We have taken as our theme "Planning a Better Georgia."
>
> We are especially interested in the subject, "Improving Our Human Resources," which will be preceded by a session concerned with "Increasing Our Health and Income," and followed by a session given over to "Constructing an Adequate Government."
>
> Each of these sessions will be based upon the reports of the Citizens' Fact Finding Movement pertinent to the subject under consideration. "Improving Our Human Resources," therefore, will draw from these reports that which relates to problems of health, education, public welfare, penal system, etc., that affect the development or rehabilitation of our people and the care of dependents.
>
> The emphasis will be upon developing a constructive program for the conservation and development of the strength and talents of the citizens of Georgia.

The Citizens' Fact Finding Movement has pointed the way to enterprises like this, and to the attainment of their goals, because it has stated needs so simply and graphically, it has suggested and is suggesting remedies which are so plain and direct, it has been kept so free of interests other than the all-absorbing interest of the state's betterment, that it has won respect.

The enterprise of the Georgia Teachers College is one of many that is finding manifestation in plans for local studies

in communities and counties. There is no copyright on the idea or the method; on the other hand, the Fact Finders, eager to obtain results through operation of the democratic process, are encouraging local studies as local projects, so that the eyes of the people at home may be opened to needs which they may fulfill by application of efforts to a small compass—so that enterprises in research by students and their leaders, training in inquiry into the operation of public institutions which are local responsibilities, may be developed in the name of betterment of those institutions through the emergence of local leadership.

Through the processes utilized by the Fact Finding Movement it is hoped, in short, to stimulate education in the realistic field of public service.

The first year's program of the Movement went through August 1938. While it was under way, the report of the President's committee on economic conditions in the South was published, and it provided a natural next step in the Movement.

The President's report gave opportunity to compare Georgia with the South as a whole. A second series of publications came out, with facts gleaned from the twelve reports as Georgia annotations of the southern survey. This device gave substance and authority to both reports.

Still there remained the problem of "Where do we go from here?" A query was sent out asking the public's advice. In response to the public's wish the sponsors turned to the next step, which was to propose programs—remedies for the shortcomings, solutions for the problems, which the inventories revealed. The latter had been objective, diagnostic. The natural sequel was a prescription.

This is the goal of present and future endeavor. The third phase of the Movement, already under way, involves proposals of remedy. The original twelve subjects are being treated in the new light by the same consultants. In the new phase, however, all twelve consultants are serving as a sort of council, reviewing each new report, relating and integrating

the fundamental problems as they appear in all the inventories.

For it is a striking thing to find that all problems of society somehow touch one another. As the consultant on the Georgia penal system pointed out in his inventory:

> The problems in this field . . . seem to be fundamental with our society and customs. They are youth problems, education problems, health problems, race problems, problems of court procedure, of equalizing opportunity and justice, political problems. For example, the factor which most largely contributes to perpetuation of the chain gang and its essential evil of human exploitation is our system of small and too-often impoverished counties. Indeed, we may remake Georgia by remaking entirely our penal system in all its implications.

All this work has been accomplished so far with remarkably little cost. The venture started on a shoe string, and has been sustained by contributions. There has been no office rent and the work has been carried on largely by volunteers and the aid of NYA students. The main expense has been that of correspondence and of mimeographing, afterward printing, the reports and mailing them out, free.

To carry on, however, and to make the program effective, serious attention has been given to a budget based on the formula: "One cent for each person in Georgia, toward a program which has as its objective the raising of the people's income 100 per cent in order to bring it up to the national average." It is the hope that this $30,000 may come from (1) foundations, one-third, (2) the large middle group, one-third in goods and services, (3) the smaller group of high-income individuals and institutions, one-third.

For the program has constantly grown since it was undertaken two and a half years ago. Requests for the reports have come from every economic level of the state, and the monthly distribution of the studies has now increased to 15,000. They are being used not only by the sponsoring organizations but by the common schools, by the institutions of higher learning, for forums, radio programs, sermons, editorials. The division of extension of the University System

of Georgia is alone using 2,000 copies a month among the teachers of the state.

The ultimate goal? In the rosier visions there is the picture of a substantial candidate for governor running with the Fact Finding reports and programs as his platform, or of a future governor of Georgia, responding to the pressure of public demand, calling a special session of the legislature to enact that part of the program which must be served by statutes.

It must be said, of course, that not all the public reaction has been sympathetic or applauding. There are traditional interests in the South as elsewhere, social and economic, who shy at many of the facts as libels and as dirty linen best kept in private. Subversive of folkways! Out of line! Danger to White Supremacy when you question the democracy of poll tax restrictions upon suffrage! Disturbance of labor balance!

Or, you may hear, all this stuff means more services, and therefore more taxes. This is an instinctive and understandable fear in the South. Taxes seem high, although they are relatively low, because resources are meager. But there you have the intention of the Fact Finding Movement—to build up these resources, build them by better standards, build standards by better services, better people in office, higher mass intelligence, and thus provide automatically the means to do the job.

The objections dwindle. Facts seem to ply a kind of magic. This method of inventory-taking, this appraisal of the results and workings of democracy, seems to point to the clearest way to get somewhere in making our system work. All people, not the merely self-interested people, must take part—and as it is being demonstrated in Georgia today, they can be induced to take part only as they are given information.

As it is being demonstrated today in Georgia, the truth will force action. Otherwise, in uncertainty and confusion a discontent will smolder, and we'll all be shocked if some day the fire breaks out and we find that the fat of our land is in it.

Class Observation and Professional Growth

By EDGAR G. JOHNSTON

DIRECTED observation of classes taught by experienced teachers has long been used as one means of orienting the beginning secondary school teacher into the techniques of his craft. Regularly scheduled visits, either in groups under the leadership of an instructor or on individual assignment, are a customary part of the training for "practice teachers." This type of experience is of undoubted value to the teacher-to-be, although it is probable that the observation visit has much less significance to him than it would have for the experienced teacher. The reason for this may be found in part in the fact that the classroom is likely to be to the inexperienced observer a "booming, buzzing confusion." If his attention has been focused during his preparatory courses on the many important factors which contribute to effective teaching, he is likely to be overwhelmed by the complexity of the classroom situation and to lose sight of the forest for the trees. The result is that he is likely to come out with notes on trivial details of classroom management, but without any very clear understanding of how the teacher's activities have contributed to or interfered with that desirable pupil learning which constitutes the only valid reason for holding classes at all. His lack of experience in a classroom situation where he is the person responsible for what goes on makes it difficult for him to distinguish significant happenings from those which are nonessential.

It would be highly desirable for the student during his first years of teaching to continue planned classroom observations under the guidance of a master teacher with whom he might discuss activities observed, the various procedures followed by different teachers in arriving at desired outcomes, and both

strong and weak points in the teaching practice of experienced teachers. Unfortunately, this kind of induction to the teaching profession is rarely possible except in those systems—and they are few—where a "teaching internship" plan has been introduced. The beginning teacher usually finds himself in a small school with a daily teaching load of six or seven classes (for some of which he is quite inadequately prepared), with a number of extracurricular activities to sponsor, and with most of his out-of-school time spent in lesson-planning and studying "to keep ahead of the class." Visiting the classes of other teachers is usually not encouraged, even if there were time for it. The principal or superintendent in such a school ordinarily teaches several classes himself and is otherwise so busy with administrative detail and community relationships that he can give but limited attention to the problems of the beginning teacher. The teacher who comes through this first year successfully and has won some measure of pupil acceptance is likely to have developed satisfactory routines for handling most classroom situations and to have lost to a considerable extent such critical interest in teaching procedures as he may have developed during his student years. If he is successful in his initial teaching venture, he is likely to pass on after a year or two to a larger system where he may, if he is fortunate, receive some help from an understanding supervisor, but where directed classroom observation is likely to play but a small part in his professional growth.

In my judgment, no single practice would do more to increase the professional stature of teachers and to improve the quality of secondary education than a policy of regularly planned visits by teachers to classes in their own and other schools. The benefits of such a plan are not confined to beginning teachers but are likely to prove equally valuable to the experienced teacher alert to opportunities for improvement. Some enlightened boards of education have adopted the policy of allowing each teacher one or two visiting days a year and of providing substitutes to carry on classroom work during the teacher's absence. A Michigan high school has

for several years combined learning experience for pupils and teachers in a traditional "Student Control Day," when school work goes on "as usual" with members of the senior class in charge, while teachers are freed for the day to visit schools of their choice in other cities. Reports from this school indicate that pupils have taken their responsibility seriously, and that teachers have come back from their visits with renewed inspiration, increased confidence, and many new ideas for application to their own classrooms. In another instance, the most stimulating and helpful staff meeting in the history of the school was one in which each teacher reported briefly on interesting procedures observed in a scheduled visit to the classes of a colleague. The committee in charge had so planned the visiting schedule that no teacher visited classes in his own department. As a result a teacher of French observed the general shop; an English teacher, a typewriting class; and the music teacher, a class in mathematics. The request had been made that while frankness was in order, each observer should pick out for report some desirable feature observed, which had significance for instruction in general. The meeting served to break down lines between departments, to stimulate cooperation among staff members, and to call attention of individual teachers to various desirable procedures which might profitably be applied in their own fields.

It is safe to say, however, that these examples represent the exception rather than the rule. Planned observation has not yet taken its place as a recognized and customary provision for the improvement in service of American teachers. Experience during the school year 1938-39 as field representative for the Cooperative Study of Secondary School Standards served to strengthen my conviction as to values inherent in classroom observation and to suggest ways in which school visiting might be given more direction and purpose. The procedure of the Cooperative Study is essentially that of a self-survey, supplemented by the observations of a visiting committee. The survey carried on by the school involved an intensive study of its educational program, equipment, and or-

ganization in the light of the philosophy of education accepted by its staff; the character of the pupil population constituting its enrollment; and the nature and resources of the community of which it is a part. Such a survey demands active and wholehearted participation by all members of the staff over a considerable period of time. Most of the evaluations carried on under sponsorship of the Cooperative Study last year occupied the staffs of schools involved for periods of intensive preparation, varying from six weeks to a semester. A clearer common understanding of goals toward which they were striving and increased acquaintance of all staff members with the varied activities and problems of the school were among the outcomes of the study for schools which participated.

The visiting committee ordinarily included in its membership classroom teachers, principals and superintendents, representatives of state departments of education, and instructors from institutions of higher education in the area. The committee spent from three days to a week in intensive study of a school and in careful review of the school's own evaluation of its program as presented in the self-survey. An essential part of the procedure in each evaluation was the systematic visiting of classes by members of the committee. Each teacher was visited by at least two members of the group, and observations made on the occasion of these visits were discussed by the committee in developing its appraisal of the instructional program. No one could participate in one of these evaluations without being impressed with the increased awareness of instructional problems and interest in their solution evidenced by members of the visiting committee as the evaluation progressed. While the primary purpose of the review was, through this appraisal, to assist the school in improving its program, an equally significant outcome was the growth in professional insight of those teachers and supervisors who participated as members of the visiting committees.

Much of the value of the class observations resulted from the fact that it was not aimless and unplanned, as is often the case in casual visiting by teachers, but that it was given direc-

tion by the appraisal instrument, the *Evaluative Criteria,*[1] which served to focus attention on significant elements of the educational process. One section of the *Evaluative Criteria* is a pamphlet of twelve pages to be filled out by each member of the staff. In addition to information about the teacher's qualifications, experience, and background, the form includes a section in which the instructional process is analyzed in some detail. This analysis includes the teacher's plans and activities, cooperation between pupils and teachers, the use of community and environment as educational resources, the use of textbooks and other instructional materials, and the methods of appraisal employed. A section of this evaluative instrument—that dealing with "The Teacher's Plans and Activities"—is reproduced below:

1. The Teacher's Plans and Activities

CHECKLIST

In the classroom the teacher:

( ) 1. Has definite procedures and objectives for a whole unit of learning and for each day's activities

( ) 2. Calls for desirable activity—mental, emotional or physical—on the part of pupils

( ) 3. Has new educational activities begin with and develop from the interests, purposes, and former experiences of pupils

( ) 4. Provides for developing desirable attitudes and appreciations as well as knowledge, skill, and understanding

( ) 5. Makes use of problem solving, analysis, comparison, association, reflective thinking, and generalizing

( ) 6. Helps the pupils discover specific applications of new information, skills, abilities, habits, and other learnings

( ) 7. Helps pupils learn how to study—how to plan, execute, and evaluate

( ) 8. Provides opportunities for pupils to use a desired type

[1] *Evaluative Criteria* (Washington: Cooperative Study of Secondary School Standards, 1940).

of behavior or reaction in a variety of situations that approximate life conditions

( ) 9. Makes use of drill largely for developing skills and habits for memorizing; this is done in meaningful situations to satisfy felt needs on the part of the learners

( ) 10. Is alert to reading difficulties on the part of pupils and seeks correction thereof

( ) 11. Makes flexible or differentiated assignments to provide for different abilities and interests of pupils

( ) 12. Makes the pupil responsible for some work done independently in order to develop power and self-direction

( ) 13. Makes pupils responsible for doing some work in groups where all group members contribute and cooperate

( ) 14. Helps pupils learn how to use the library effectively

( ) 15. Helps pupils learn how and where to find supplementary material outside the library

( ) 16. Seeks to make pupils increasingly independent of teacher guidance

( ) 17. Reveals enthusiasm for and enjoyment of his work and his pupils

( ) 18.

( ) 19.

** EVALUATIONS

( ) *x. How adequately does the teacher prepare for classroom activities?*

( ) *y. How stimulating are the instructional procedures which the teacher uses?*

( ) *z. How adequately are desirable outcomes (knowledge, skills, understandings, judgments, appreciations, and attitudes) provided for?*

Comments:

It will be observed that there are two parts to this blank—a series of "checklist" items which will be recognized as evidences of desirable teacher planning, and "evaluations," to be based on the checklist and other available evidence. For each of the checklist items an appropriate symbol is placed in the parentheses to indicate that the provision is carried out

very satisfactorily, only moderately well, or not at all. Evaluations are indicated by different symbols signifying "very superior," "superior," "average," "inferior," or "very inferior" attainment on the basis of comparison with typical practice. It is not to be expected that an observer will be able to see evidence bearing on each of these items in the course of a single visit. It does seem reasonable, however, to assume that the visitor who has familiarized himself with such an analysis of good teaching practice will be much better prepared to appraise significant elements of instruction than one who comes simply with the general aim of observing what goes on.

A study of this section of the *Evaluative Criteria* should be helpful alike to supervisor and to teacher. The superintendent or principal interested in helping his teachers to grow professionally—and it is increasingly recognized that the only kind of supervision which is worth while is that which promotes teacher growth—will see in purposeful classroom observation a means of helping teachers to clarify educational objectives and to develop classroom procedures in harmony with the ends they wish to attain. The teacher eager to grow in professional vision and the skills of his craft will find in directed observation a fascinating and helpful means to improvement. Our profession is so challenging and so rich in possibilities that no teacher has reached that stage of perfection where he has nothing to learn from his fellow craftsmen.

Other similar sections of the *Evaluative Criteria* deal with cooperative planning between pupils and teacher, use of community and environment for instructional purposes, use of textbooks and other instructional materials, and methods of appraisal of pupil progress by means of tests, observations, and rating scales.

Visits based on some such analysis as that presented in the *Evaluative Criteria* serve to focus attention on significant areas of the instructional process. In the activities of another classroom the teacher may frequently pick up suggestions for vitalizing his own teaching procedures or enriching the con-

tent of his courses. There may also be an advantage in encouragement and renewed self-confidence when the visitor sees that other teachers are not always successful in what they try and may be faced with difficulties equal to his own. Not the least of the values to be found in visits on a basis of mutual sympathy and respect is the broadening of professional contacts and friendships which result. George Arliss in his fascinating autobiography *Up the Years from Bloomsbury* gives this advice to young actors, "make friends early in your own profession." This admonition may be taken to heart by the young teacher as having equal significance for him. In a profession as mobile as ours, and one so dependent for success on cooperative efforts, the importance of wide acquaintance and common understanding among those working in the same area can scarcely be exaggerated. A plan of friendly interchange of visits by teachers in neighboring schools may contribute greatly to this end.

Education today is faced with many difficult and baffling problems. Enrollment, particularly in the secondary schools, has increased at a rapid rate, while resources have not kept pace with it. We have become more sensitive to the great variety of needs and interests represented among the pupils in our classes. Increased insight into the nature of learning has revealed the deficiencies of instructional methods with which we were satisfied a generation ago. Enlarged demands of society upon the schools have resulted in the broadening of curricular offerings and a greater emphasis on the relationship of in-school learning to out-of-school experience. While these changes have made teaching in many ways more interesting and satisfying, they have also made the teacher's task more difficult and baffling. The tasks which confront us will demand all that we have of professional vision and concerted effort. The value of intelligent, planned, and purposeful class observation is not to be overlooked as an important means of helping teachers to develop the professional stature necessary to measure up to their responsibilities.

National Coordination of Guidance Activities

By FLOYD W. REEVES

THE NATIONAL coordination of guidance activities can, as I see it, mean two things, both of which are essential if we are to enjoy the benefits of sound and effective programs for youth. First, this coordination involves the development of close working relationships of at least four major agencies on the national level—the United States Office of Education, the National Youth Administration, the Employment Service Division of the Social Security Board, and the newly created Occupational Outlook Service of the Bureau of Labor Statistics. All of these national agencies are concerned with one or another type of guidance activity. Close cooperation between them is obviously desirable.

The fact should be borne in mind, however, that these national agencies exist primarily to serve states and communities. They do not control local guidance programs, but rather stand ready to give these programs such assistance as their resources permit. It is possible, therefore, and perhaps desirable, to think of "national coordination" of guidance activities in terms of a national network of coordinated community guidance programs. It is in this second sense that I should like to discuss the problem of coordination.

In considering the coordination of guidance activities, I shall draw rather heavily upon the findings and conclusions of a recent venture of the American Youth Commission in the field of occupational adjustment. This was a cooperative project with the United States Employment Service in which "community research centers" were set up in the four metropolitan areas of St. Louis, Baltimore, Providence, and Dal-

las—the St. Louis and Baltimore centers also serving four adjacent rural areas in Missouri and Maryland.[1]

Along with the development of locally significant occupational research, the basic objective of this cooperative project was the promotion and implementation of community programs of occupational adjustment. This necessarily brought the American Youth Commission into rather close contact with the three agencies that are most usually concerned—the schools, the local employment service, and the National Youth Administration. What I have to say about the coordination of guidance activities will be largely concerned, therefore, with the development of effective working relationships between these three agencies.

The process of assisting students and young workers to make wise occupational choices is only one of the many responsibilities of a guidance program. Vocational guidance might be successfully defended as the most vital and most universally needed phase of the guidance process, but no one, I believe, would insist that it constitutes, in itself, all that guidance involves. In this discussion, however, particular emphasis will be placed upon that phase of the total guidance process which is related to occupational adjustment.

There are a number of points of view from which the subject of coordinating vocational guidance activities might be profitably discussed. This paper is limited, however, to a brief consideration of (1) coordinating these activities in a school situation, (2) a more extended discussion of what is involved in the coordination of the activities of the community agencies that are usually concerned with guidance, and (3) coordinating guidance activities with the other services involved in the occupational adjustment of the individual.

---

[1] Howard Bell, the representative of the American Youth Commission in this cooperative project, has prepared a report on the outcomes of the demonstration. This report will be published by the American Council on Education at an early date. I am under obligation to Mr. Bell for major assistance in the preparation of this article.

Coordinating Guidance Activities within a School

Observations made during the course of our joint project with the Employment Service convinced us that an effective school guidance program should, among other things, integrate the guidance function with the teaching function by establishing direct lines of authority for guidance work from the principal to the classroom teacher. In our study of guidance programs in certain counties of Maryland, for example, we found that guidance activities could be developed for average or smaller consolidated rural schools along the lines which I shall now outline briefly.

Chiefly responsible for the coordination of all guidance activities might well be a *faculty guidance committee.* Let us suppose that such a committee has been set up. It has been appointed by the principal and is composed of class advisers, selected on the basis of their capacity for leadership and their competence as counselors. The committee is responsible for planning guidance materials and outlines. It coordinates all homeroom work in guidance by working directly with all homeroom teachers to see that the program outlined is effectively executed.

Responsibility for certain specialized service functions rests with the committee. These include such guidance activities as the preparation and collection of materials on vocational information, the administration of all tests, working out schedules of visits to local establishments, developing close relationships between the school and the local public employment office, and inviting qualified speakers to talk to students about the worker requirements and employment opportunities in specific occupational fields.

In addition, the committee carries forward a combined program of in-service training and current planning by holding monthly or bimonthly meetings with the homeroom and classroom teachers. And finally, as class advisers, the members of the guidance committee are ultimately responsible for keeping the cumulative records on each student accurate and complete.

The function of the *classroom teacher* in such a coordinated school guidance program is largely one of clarifying to students the relationship between subjects taught and the requirements of occupations. The conscientious efforts of the classroom teacher in this direction are of vital importance. Among other things, these efforts do much to create and maintain a student's interest in a subject by suggesting actual occupational outlets for the knowledge or training which the study of the subject provides. While it would be a grave mistake to assume that the study of every school subject should lead directly to some vocational goal, it is certainly safe to assume that any activity which stimulates interest and increases motivation is constructive and worth while. Pointing out to students the vocational value and uses of what they are taught often does exactly that.

In this coordinated program, the *homeroom teacher* contributes her part by doing everything possible to facilitate the social adjustment of her pupils. Among other things, she strives to inculcate in her pupils a lively sense of responsibility to the school and to society. She attempts to cultivate attitudes of cooperation as well as enthusiasms for leadership. And, along with these things, she strives to develop such "vocational virtues" as diligence, dependability, and punctuality.

As a part of such a school guidance program, it is highly desirable, but not always necessary, to have a professionally trained counselor assigned to advise students who, as graduates or withdrawals, are about to enter the labor market. Although the addition of such a person is not so essential if the class advisers properly execute their duties, it is usually advisable, wherever possible. In larger schools, it is often necessary to place upon such a person the central responsibility for individual counseling. There is no reason to believe, however, that the class advisers cannot effectively carry on this individual guidance function from year to year, provided they have a medium by which pertinent information concerning the individual student may be transmitted from one class adviser to the next.

This comparatively simple structure would probably meet the needs of most of the smaller schools which came under the observation of the analysts of our joint project. It is particularly adaptable to the needs and resources of rural consolidated schools. At least it should suggest ways and means by which a school's teaching and administrative personnel may be encouraged to become increasingly "guidance conscious." Its adoption and faithful execution should result in the adaptation of school programs to both the needs of the individual student and the realities of postschool living. And this, certainly, is the kind of educational goal we all believe in.

Coordinating the Guidance Activities of All Community Agencies

The job of coordinating all the guidance activities of a community presents a variety of problems. These problems range all the way from heart-breaking complexity to infinite simplicity. Let us take, as examples, two communities. In order not to hurt anyone's feelings we shall call one A and the other B.

Community A, to put it politely, is not a guidance-conscious community. Its schools have many of the characteristics of custodial institutions. Youth are "put away" until they escape as withdrawals or are released as graduates. In these schools the old line of demarcation between the gown and the town, the school and the community, still survives. Students "get culture" because it is good for them. Industrial, social, and political agencies are avoided as if they were unclean. There is no schedule of visits to factories, stores, and employment offices. The speakers, if any, who are brought to the school classes or assemblies to discuss vocations are usually recruits from the professional or proprietary groups. Aptitude tests and all that is implied in a testing program are dismissed as needless fads. The idea of stimulating interest and increasing motivation in the study of a school subject by pointing out to students its occupational implications either has never occurred to the teachers and counsel-

ors or has been condemned as unworthy. The vocational guidance activities in such a school are, in short, exactly nil.

I should like to think that such a school is purely imaginary, but, unfortunately for all of us, particularly our youth, it is not imaginary. While such schools are certainly not typical, or even nearly so, they are far too numerous for comfort.

This Community A also has a local public employment office. It has one of the eleven or twelve hundred employment offices in the nation which provides no specialized services for youth, or "juniors." For reasons of economy, financial inability, indifference, or ignorance of the counseling and placement needs peculiar to young, inexperienced workers, juniors with little or no experience are served by the same placement interviewers and in the same manner as mature workers with years of experience. With no qualified counselors and no testing units, such offices are poorly equipped to give their young applicants an adequate vocational diagnosis or arrive at realistic conclusions as to the applicant's proper occupational classification. In such a situation a junior job is often any job that an adult doesn't want, and the candidates are any young applicants who happen to be near at hand or whose last names begin with A or B.

Here again we have an extreme case, but, unfortunately, not so far from the realities of many of our public employment offices to justify our dismissing it as fantastic. To realize that such a public employment office is a real possibility, we need to recall that only a minority of such offices have specialized facilities and personnel for the treatment of junior applicants. To realize that our "imaginary" school is quite within the realm of actuality we need only to recall that our high schools, when last analyzed for this purpose, had, on a national average, only one full-time counselor or guidance officer for every 3,100 enrolled pupils.

To coordinate the guidance activities of the schools and placement office in Community A is obviously a simple job. It is simple for the reason that there are so few such activities to coordinate.

Let us, then, have a look at Community B. This community has schools that are deeply conscious of the need and value of adequate and realistic guidance programs. Among other things, they have all of the essential facilities and employ all of the validated techniques and procedures with which to assist the individual student in arriving at a clear understanding of his vocational aptitudes, abilities, and interests. They have, moreover, so intelligently integrated the teaching and guidance functions, and are so richly endowed with up-to-date, locally meaningful vocational information, that they can give every student a realistic appreciation of what the "world of work" actually means.

Along with these things, the schools of this community have developed, and consistently use, individual inventories, or cumulative records on which vocationally significant items of information on each student are systematically recorded. It is understood that these records have little or no intrinsic value, but acquire value only to the extent that they contribute to the more effective education, training, and final adjustment of the individual student. With this conception of the purpose and value of a cumulative record, these schools not only permit, but insist, that they be put to profitable use by the placement agency which assumes the guidance responsibility for the youth when he withdraws or graduates.

Community B also has a public employment office. This employment office is one of the small, but definitely increasing number, which provide specialized services for young, inexperienced applicants. Its "junior division" is adequately staffed with carefully selected and technically trained interviewers or placement counselors. These workers are intellectually, professionally, and emotionally qualified to deal with the somewhat peculiar problems and needs of the characteristically befuddled boys and girls who, for the first time, face the none-too-tender mercies of a harshly competitive labor market. As a part of the junior division of this office is a testing unit, headed up by a competent psychologist. To this unit are sent all applicants (the majority) whom an inter-

viewer has been unable to classify occupationally, either on the basis of work done or training received. To supplement, and in many cases to inaugurate, these interviewing and testing functions, the junior division has had the benefit of the experience and a measure of financial support from the National Youth Administration.

In this community we have, in fact, all the essentials of a community program of occupational adjustment. All, of course, except an adequacy of jobs, but no adjustment program, however complete its resources and enlightened its leadership, can be expected to fill this gap. We have schools with aggressive and alert guidance programs, and we have a public placement office that is both willing and able to carry on the guidance functions at the point where the school's responsibility ends.

With such a wealth and variety of guidance activities, it is obvious that here in Community B we have something to coordinate. Our fundamental task is to see to it that guidance becomes, in fact, a continuing process. To make it genuinely so, we will want, first of all, to develop machinery by which the vocationally significant information contained in the school's cumulative record is transferred from the counselors in the school to the counselors in the placement office. If, as in Providence, Denver, and other cities, this placement function is centralized in the administrative offices of the local school system, this transference is between the guidance department and the placement office of the same school system. If the placement function is assumed exclusively by the local public employment office, as it is in St. Louis and Dallas, the schools should make this vocationally meaningful material available to the employment office.

By means of this transference, the placement counselor is able to build upon the diagnostic work already done by the schools. This procedure not only reduces the time and cost involved in placement interviewing, but it also provides the best possible assurance that young applicants will be realistically classified. In the end, such transference reduces both

the frustration of the haphazardly classified applicant and the blood pressure of the employer who so often accepts referred applicants who have little enthusiasm and no ability for the jobs to which they are assigned.

This, then, is a basic step toward coordinating guidance activities. The need for guidance, particularly vocational guidance, does not end when boys and girls leave their school days behind them. This need stays with them until they are satisfactorily adjusted to the occupations they are most clearly qualified, as individuals, to perform. This is merely another way of saying that the placement office, as well as the school, should be equipped to provide guidance service. A systematic transference of vocationally significant information from the school to the junior placement office is one way of bringing about effective coordination.

Another important procedure which should be generally adopted is one which facilitates the registration in the junior placement office of all the schools' withdrawals and graduates who are about to enter the labor market. Our records show that only a minority, probably no more than one in five or six, of the youth under twenty-one are registered in a public employment office. This "service gap" should be effectively bridged by providing all such students, as a part of their instruction in vocational information, a knowledge of the whereabouts, purposes, and possible advantages of registering at the local employment office.

I have mentioned only two means by which the coordination of the guidance activities of a community might be effectuated. The possibility of mutually valuable relationships between the schools and the placement office are far too numerous and varied to cover here. There is, for example, the matter of occupational research. Schools need, and should demand, the information on occupational patterns and employment opportunities which all employment offices possess. School counselors can always profit from in-service training in the placement office. Such information and such training can also be put to profitable use by those in charge of the work

projects of the National Youth Administration. All of these agencies, in fact, have everything to gain and nothing important to lose by developing close and sympathetic working relationships with each other.

We have found that the effective coordination of guidance activities can be greatly facilitated by the organization of local advisory councils, composed of interested and responsible persons drawn from such varied groups as education, the employment service, industry, labor, service clubs, and youth. Such a council helps to give the whole guidance program the dignity it deserves and the support it demands. It also tends to reduce or obliterate "agency mindedness" and develop, in its place, a dominating desire to provide the youth of a community with the great advantages that are universally present in an adequate and intelligently coordinated community guidance program.

Coordinating Guidance with Training and Placement Services

While it is important to take steps that lead to the integration of guidance activities both in the schools and the community as a whole, it would be a mistake to assume that the responsibility for coordination ends there. We have recalled that vocational guidance is only a part of a total guidance program. We must also realize, at all times, that vocational guidance is only an element in a total program of occupational adjustment.

To be made genuinely effective, vocational guidance must be closely tied in with training and placement. It must, in a school, be the medium by which students are assisted in the choice of subjects and courses leading to an eventual occupational field. It must also lead directly and logically to placement on the job which, of all available jobs, the individual is most clearly qualified to perform. When such coordination exists between the teaching, counseling, and administrative personnel in a school, between all the guidance agencies in a community, and between all the services involved in

the occupational adjustment of the individual, we may then assume that we have an intelligently and effectively integrated program.

So far as the fundamental objectives enumerated above are concerned, the task of coordinating guidance activities is essentially the same for both urban and rural areas. The problems involved in a rural community differ from those encountered in an urban situation in two important respects.

First, because of economic compulsion and the relative paucity of rural employment opportunities, a substantial proportion of rural youth are forced to migrate to near or remote urban areas. This means, of course, that schools and other agencies concerned with the occupational adjustment of young people must be acquainted with the economic, social, and occupational realities of those areas to which youth will migrate. To the farm youth destined to find eventual employment in a metropolitan community, an understanding of the fundamental facts regarding urban employment is of basic importance. To make guidance, for these potential migrants from rural areas, realistic and meaningful, it is therefore necessary for rural schools not only to know the proportion of their graduates and withdrawals who are likely to make satisfactory adjustments on farms and local nonfarm occupations, but also the proportion who will prefer, or will be forced, to adjust themselves to the occupational and economic conditions of a near-by or distant urban community. This information can best be obtained by conducting routine follow-up studies which, among other things, uncover the facts regarding both the occupational and geographical distribution of local school graduates and withdrawals.

Second, the problems involved in a rural community differ from those in cities because the rural community, as usually understood, is not a realistic and profitable unit in which to develop and operate an adequate and effective program. What is generally needed is the pooling of the resources of all the small governmental units which together constitute a "local labor market." With such a unit as a scene of action,

the difficulties and costs of developing meaningful research and of operating an adequate program are substantially simplified and reduced. The acceptance of the local labor market as the practical territorial unit in which to develop and operate a guidance and adjustment program would, among other things, make possible the development of essential occupational research, the provision of itinerant counseling and placement service, and, in some areas, the creation of centralized training and testing units.

Such a pooling of resources for the purpose of providing rural youth with adequate guidance services has many of the established advantages and values that have been convincingly demonstrated in the consolidation of schools. The essential difference is that the individual communities which together constitute the local labor market do not lose their identities, but merely contribute their share to the modest costs which the total adjustment program involves. Once a local labor market for purposes of guidance and occupational adjustment has been accepted as a "community," a real start has been made toward the development of a realistic, adequate, and effective program.

Retreat to Aristotelian Mediocrity

By CHARLES F. HOBAN, JR.

AT TIMES the English language fails us. Writing about *mediocrity* is an example. Mediocrity has come to mean middling, second rate, of only moderate quality. By this use of the word, we deny its essential meaning. For, when we speak of mediocrity in this way, we imply a value in extremes, and affirm that virtue exists in only one of these extremes. Yet mediocrity has not always meant the lower limit of a scale of acceptability. Aristotle, in his *Ethics,* held that all virtues consist in mediocrity, the kind of mediocrity that "always lies in the middle between two blameable extremes." [1]

There can be little doubt that the extremes which characterize the curriculum in American education have been pronounced blameable. Indeed, educational leaders often seem to be more concerned with blaming their adversaries, real or imagined, than with finding common grounds of agreement. It is the argument of this article that we return in education to the common sense which lies between the blameable extremes of the worst of the traditional point of view and the excesses of the new, for with the reaction away from the traditional we have on our hands, as Scott Buchanan declares, "a full-blown anti-intellectual educational philosophy today, an anomaly in educational theory and practice, and a serious threat to our social and political survival." [2]

To the end that mediocrity in the Aristotelian sense may be achieved it is proposed to examine briefly three overlapping concepts fundamental to general education: the whole child, the ability to think, and the functional curriculum. In the

[1] Book II, Chap. 7, from the English translation by John Gillies (London, 1813).

[2] *Democracy's Challenge to Education* (New York: Farrar & Rinehart, 1940), p. 121.

discussion of each, an attempt will be made to examine the excesses of opposing extreme positions, and to indicate the middle position to which schools must return if common sense is to prevail.

The Whole Child

Curriculum emphasis on the whole child is essentially a reaction against a sterile intellectualism that characterized schooling of the past two generations. With mass education came emphasis on the teaching of subjects as such, the imparting of a "knowledge of facts," and a preoccupation with narrowly defined intellectual processes. But what passed as knowledge of Latin, geometry, and science, and a supposed attendant mental discipline, frequently turned out to be an emotional aversion toward these subjects, a general dislike for intellectual activity, a dependence on arbitrary authority, and a rejection of much of the highest and finest the race has slowly accumulated.

Forgotten was the individual in the haste for mass development of intellectual processes. Neglected or obstructed were his interests, his needs, his individual and social requirements: participation in group activity, self-initiative, self-discipline, a feeling of adequacy, a clear concept of morality, and a willingness and ability to accept responsibility.

In reaction came the doctrine of the whole child, the doctrine that the child in the classroom is not a free-floating intellect, that he brings with him to the classroom his health, his emotions, his interests, his aspirations, his sociability, and the cumulative effect of his out-of-school living, and that all these help to shape his attitudes and influence his activities toward and in the curriculum. William Heard Kilpatrick puts it this way:

> When the child reacts, he reacts all over and through, all parts together to make one whole response. He thinks, he feels, he has impulses, he moves his body, his internal glands secrete. These named responses all come not as distinct separate movements, but as one organic or unitary whole. Wherever there is thinking, we must expect some feeling, some

impulse, and some bodily movement. *One of these may be dominant, but in each conscious reaction the others are also present.*[3]

V. T. Thayer, Caroline B. Zachry, and Ruth Kotinsky, discussing needs as a basis for the reorganization of secondary education, take a slightly different approach, but express the same general idea:

> From the point of view of an education concerned with what a person does in his life, with the worth he finds in it, and with the contribution he makes to society, the learner must be conceived as a physical-social-emotional-intellectual personality.[4]

There are various opinions on the usefulness of the whole-child concept. George W. Stoddard says, "The concept of *the whole child* is useful to the parent, the teacher, and the clinician, but it proves to be a millstone about the neck of the exact scientist." [5] In the same volume, Goodwin Watson devotes a section of his chapter to a consideration of "the whole person," in which he remarks,

> One criticism of such phrases as "the whole child" or "the total personality" seems required. These expressions are sometimes used very superficially. It is no great help in research to assert simply that everything is related to everything else. . . . The questions of what is related to what, and how closely related are the parts, should not be begged by an assumed general integration.[6]

Thayer, Zachry, and Kotinsky, in stressing the nonintellective aspects of personality throughout their report, have in effect fallen into the pernicious fallacy which holds that because there is no intellection without impulse and emotion, provision in school for expression of impulse and emotion ("selfhood") *de se* provides for development and discipline of the intellect. For while mention of the intellectual proc-

---

[3] "The Education to Be Sought," *Progressive Education,* XVII (January 1940), 12-13. Italics are mine.

[4] *Reorganizing Secondary Education* (New York: D. Appleton-Century, 1939), pp. 32-33.

[5] *Educational Research,* American Council on Education Studies, Series I, Vol. III, No. 10 (November 1939), 33.

[6] *Ibid.,* p. 121.

esses is made throughout the book, the reader who seeks extended discussion of the role of the intellect in the behavior of the whole child is doomed to disappointment. To the contrary, he finds that

> the wishes, feelings, desires, inclinations—both conscious and unconscious—are basic, for they represent the propelling and inhibiting aspect of the whole self in action. It is in terms of the emotions that situations are sought or avoided, and that learnings are incorporated into the self and used in the course of further experience. For emotions are not only feelings within; they exert a selective influence as well and lend color to that which is undergone and therefore what is learned.[7]

Frequent reference is made throughout the report to the demands for free play of intelligence in democratic society but the nature of intellectual freedom is not clear. Indeed, its existence is all but denied by the consistent emphasis on nonintellective development and on the directive and selective function of emotion. With such a conception of the mature human personality, there is danger that the development of the intellect—the proper object of human education—may be lost in the flush of unreasonable emotion, and that the whole child may turn out to be an incorrigible brat, if it is not already so. The report's keen insights into social needs and implications of these needs for the reorganization of the secondary school curriculum may be vitiated in the long run by the reduced importance attached to the human intellect.

General psychology and educational psychology have done little to clarify the situation. The "organismic psychology" which educators talk so much about is no child of psychological discipline.[8] It is the problem child of the educational philosopher, and like most problem children, misunderstood by its parent.

New and proletarian among the sciences, psychology has

---

[7] *Reorganizing Secondary Education*, p. 33.

[8] By most educators the term organismic psychology is oversimplified to mean that the whole is greater than the sum of its parts and that the organism reacts as a whole to the situation as a whole. Psychologists find the term of little use.

striven for academic respectability and has become respectably academic. American psychology has been primarily experimental and deliberately divorced from philosophic orientation except in generally unrecognized assumptions of experimentalism. Characteristic of experimental research in psychology have been an emphasis on physiology and a preoccupation with isolated psychological functions. Psychology's "science of the mind" has been derived from growing sophistication in laboratories with maze-running white rats. Notably few, except in child psychology, are experiments with human subjects, and more rare are those dealing with intellective functions. Emphasis has recently been placed on the dynamics of behavior, its conative and affective aspects, but investigation of these aspects does not solve the fundamentally important problem of human psychology—cognition.

Educational psychology has followed the experimental lead of general psychology. Valuable as has been the experimental approach to education and effective as its contributions have been to educational practice, yet educational psychology repeated the errors of experimentalism—preoccupation with narrow intellectual aspects of learning, neglect of the motivational and emotional aspects of behavior, and of the relation of behavior to the environmental situation of which the organism is a part. Measurement of intelligence, constancy of the IQ (more recently its waywardness), rate and distribution of learning, transfer of training, eye movements in reading, adding up versus adding down in arithmetic—these constituted the core of educational psychology built largely on a stimulus-response theory of mental development.[9]

Harried classroom teachers looked in vain to educational psychology for practical assistance in curriculum development and implementation. The law of learning was the law of repetition, so that the curriculum consisted of drill and more drill. The law of learning was the law of effect, so ac-

[9] For an excellent appraisal of the role of experimentalism in American education, see William A. Brownell, "Quantitative Research on Teaching and Learning," *School and Society,* L (Dec. 30, 1939), 847-56.

ceptable behavior was rewarded with high marks and unacceptable punished with low marks and grade failure. Yet, the laws of repetition and effect did not explain "success and failure," nor was the intelligence quotient more than a handy excuse to the teacher, a stigma to the "dull" pupil.

But from sanity's border came mental hygiene, the warm answer to the teacher's prayer. Leaning heavily on the literature of abnormal psychology, mental hygiene offered to education what psychoanalysis offered to psychology—a new vocabulary describing the everyday troubles of troubled people. Whereas educational psychologists were grubbing in controlled classrooms with isolated intellectual functions, mental hygienists pushed into the home, the playground, the court, and the prison, dug into motives, cultivated the field of emotions, compiled juicy case histories, scrutinized tricks of the intellect. Conflict, repression, compensation, insecurity, fixation, identification, rationalization—these were the new vocabulary, the new answers to all questions. Twisted, miserable, helpless folks were now "emotionally maladjusted." Blamed were poverty of environment, unwantedness, brutal discipline, lack of sympathy, love, and opportunity for healthy growth and expression—never lack of understanding, lack of intellectual exercise. Unadulterated was the color of emotion in mental hygiene.

Popularized accounts of the theories of Sigmund Freud and Alfred Adler meanwhile became tea-table topics, professors fled to Vienna to be psychoanalyzed, others were psychoanalyzed at home. Emotions, indeed, were the bases of human behavior, nice nasty emotions of incest, patricide, matricide, and the will to power, deep-rooted in the new-born babe, developed in the fertile months of infancy and early childhood. Emotion twisted reason. All reasoning was rationalization. Emotion, not reason, dominated mankind. Emotion, therefore, was the core of the whole child. Emotion, therefore, was the first concern of education.

But the whole child is no more emotional than intellectual. The results of long research in intellectual aspects of educa-

tional psychology do not decrease in classroom significance because other aspects are newly recognized. Cognitive processes do not cease to exist or to be of human importance because the educator becomes aware that there is an emotional aspect to behavior and because this emotional aspect has important relations to intellective functions. The principles of transfer of training have not been refuted by the discovery of well-known interests, the measurement of intelligence has not lost its importance because other factors are recognized as also pertinent to educational achievement.

This is not to belittle the important contribution of mental hygiene to educational psychology and the curriculum. On the contrary, its excesses have, in a way, been a healthy antidote to the unfortunate isolation of intellectual processes. Adler's concept of compensation has led to extremely fruitful experimentation in the dynamics of emotion, and Freud's emphasis on motivation has led to fruitful research in other problems of dynamics by Lewin and his group.[10] Emphasis on valences, self-relations, and psychological barriers have profound significance for the curriculum. Applied to the curriculum, mental hygiene has freed the child from a rigid, sterile classroom environment, centered activity in the interests and needs of childhood, and *opened the way* to a sound program of effective education.

But *of itself* all the mental hygiene in the world, all the sentimental sympathy and empathy of the whole-child protagonists will not help the child (or adult) in the actual rigors of intellectual discipline involved in reading and writing the English or any other language, in adding, subtracting, multiplying, and dividing, in observing data, deriving and applying principles, in analyzing and synthesizing, in thinking and acting intelligently. These civilized abilities are not the product of man's age-old emotions, but of his new-found intellect. They can be acquired only by hard intellectual effort.

[10] See, for instance, Kurt Lewin, *A Dynamic Theory of Personality,* translated by Donald K. Adams and Karl E. Zener (New York: McGraw-Hill, 1935).

In the kind of society we have and want here in the United States, life must be reasonable, the *good man* must be an intelligent man. If life is to be reasonable, adjustments must be intelligent, based on reason, governed by reason. Education must rest on a concept of human nature in which there is a clearly defined structure of the relation of discriminate mental functions and which considers human action in terms of what Aristotle calls "either impassioned intelligence, or reflecting appetite." [11] Education based on the primacy of emotion is not only psychologically unsound, but also socially dangerous.

Mediocrity, or the middle way, lies not with those who make emotion the supreme core of behavior and its role the selecting or inhibiting of all action, or with those who make intellect independent of emotion and feeling. It lies between these blameable extremes. It recognizes the appetites and emotions as the energy sources and warming colors of human action, but it seeks human adjustment in the ordering of appetite and emotion through the benevolent sovereignty of the intellect, so that consequences of means and ends of action may be projected, and choice of conduct be based on reason. Mediocrity insists on the primacy of the intellect in the educated man, and insists that the function of education is the establishment of this primacy over appetite and emotion. Otherwise, man, like the ape, will be a good bit lower than the angels.

The Ability to Think

Every curriculum seeks in one way or another to develop in students the ability to think. Traditionally, this ability was to be developed in the process of mastering a body of subject matter, either through the processes involved in learning abstract material or through the processes inherent in the subject. Subject matter itself was considered an important element in developing the ability to think, since a

[11] *Ethics,* Book VI, Chap. 2.

knowledge of facts and principles is necessary for the kind of manipulation of situations which is regarded as "thinking."

With the coming of mass education discussed briefly in the preceding section, attention became focused in the subject matter itself, and ability to think (mental discipline) was assumed as a correlative of knowledge of facts. The standardized-test movement is based on this assumption. By testing a student's knowledge of facts, a measure was supposed to have been secured on the child's progress toward all important measurable educational objectives. Since a student had to know a fact or principle in order to apply it (many educators have found difficulty in distinguishing between facts and principles), it followed that a knowledge of facts and principles was a reliable indication of the ability to apply them, and application of principles is one aspect of the ability to think.

By demonstration of geometrical theorems, therefore, the student is taught the nature of demonstrative proof and of deductive thinking. By testing for a knowledge of geometric theorems, a measure is secured of the student's understanding of the nature of proof, his ability to think deductively. Ralph W. Tyler's investigations in the teaching of science [12] and Harold P. Fawcett's study in the teaching of geometry [13] have thrown these conclusions into disrepute. It does not follow with the present violent reaction, however, that thinking can be divorced from thought, and that because mere verbal knowledge of subject matter is no indication of a person's ability to think either in or beyond the subject, subject matter as such has no value in the modern curriculum.

About ten years ago a distinction was made between teaching "what to think" and teaching "how to think," and it is with this distinction that a new element of confusion was introduced into the curriculum. So far have educators veered

---

[12] Reported in *Education as Cultivation of the Higher Mental Processes* (New York: Macmillan Company, 1936).

[13] Harold P. Fawcett, *The Nature of Proof* (New York: Columbia University, 1938), published as the Thirteenth Yearbook, National Council of Teachers of Mathematics.

away from the what-to-think (pure subject matter) to the how-to-think concept, that there is considerable evidence that the baby has been thrown out with the bath.

We need, therefore, to examine some instances of the how-to-think concept applied to the curriculum in order to reach a state of mediocrity which denies that you can teach a person how to think without also teaching a person what to think, for if thinking leads to anything, it leads to thought, and thought is a mighty important element of human activity.

With the how-to-think concept has come to the curriculum a strange alchemy of "evolving wisdom out of ignorance." [14] At the Seventh Conference on Educational Policies held at Teachers College, December 7, 1939, E. L. Thorndike expressed himself as opposed to the notion that

> A teacher does not need ever to have studied economics in order to give a good course in the subject. All that is needed is a teacher (1) who is alert to the problems of the day, (2) who is open-minded, (3) who can stimulate pupils to bring economic problems to class for discussion, (4) who permits and encourages free and open discussion of all controversial subjects, (5) who instills into the pupils a spirit of tolerance for all views and a respect for the opinions of others, and (6) who shows in all discussion that he or she has at heart the solution of the economic ills of the day in a way that will restore prosperity and happiness to the whole people.[15]

Without pausing to examine the wisdom-evolved-out-of-ignorance basic to the sixth requirement of the good economics teacher, or the antithesis or hypocrisy deriving out of the fifth and sixth requirements, let us proceed to Professor Thorndike's contrary opinion:

Against the opinions of many, I am convinced that the teaching of

---

[14] The author is indebted to Reginald Bell, of Stanford University, for this phrase. Professor Bell, on the other hand, lays no claim to originality, quoting, in turn, some other dissenter.

[15] This paragraph and one other was quoted by Professor Thorndike from an article by "Dr. Otis, whom I hold in high esteem" (Arthur S. Otis, "Educating for Democracy: Some Specific Suggestions"), *School and Society*, L (Oct. 21, 1939), 533-34.

economics in high schools needs textbooks and observations or experiments devised with great ingenuity and care. I would as soon trust free discussion by boys and girls to develop the truths of algebra or physics as to develop the truths of economics. I see little more probability that voicing their opinions about economic problems will improve their habits, powers, or ideals as economic or political forces then or in adult life, than that voicing their opinions about the Latin language will give them power to use it.[16]

This how-to-think-by-free-discussion, without reference to that which is already known about the subject discussed or acquaintance with crucial data sufficient to a true conclusion, has become mixed up with the concepts of democracy in education and education in and/or for democracy. Since democracy involves freedom of speech, freedom of speech must be allowed in the classroom. Consequently, in some schools and among some educators, teaching has become a process of presiding innocuously over any and all kinds of student discussion of any and all subjects. In such discussion each student, regardless of his wisdom or ignorance, has a duty (social living) to voice his opinion, and truth is arrived at through majority vote. Such decadence of dialectics passes under the twin guise of "training in thinking" and "democratic living in the school."

Those who maintain that one need not have studied economics to teach a good course in economics find strange bedfellows among mathematics teachers who hold that geometry as a body of knowledge is unimportant, but as a stadium for mental gymnastics it has unlimited possibilities.

In disproving that the mere teaching of geometrical theorems has a necessary relation to a general understanding of the nature of proof or the development of a general ability to recognize assumptions and to think deductively, Dr. Fawcett has unfortunately leaned backward into a position quite as untenable educationally as the one from which he reacted. Discussing his experiment in teaching geometry in senior high

[16] *How Can Economic Illiteracy Be Reduced?* (New York: Advanced School of Education, Teachers College, 1940), p. 20.

school, he says, "The theorems are not important in themselves. It is the *method* by which they are established that is important, and in this study geometric theorems are used only for the purpose of illustrating this method." [17]

Again, what to think is not important. Rather, how to think. Or, putting it another way, truth is unimportant. The important thing is the method of deriving truth, if Dr. Fawcett means what he says. One must ask why the means are important, if the ends are not, pointing out that the order of execution derives out of the order of intention.

From this experiment it was concluded that experimental students learn as much geometry as students taught in formal courses, improve in reflective thinking, generalize reflective thinking and apply it to nonquantitative situations, and that students taught in formal courses do not improve in reflective thinking.[18]

For those who take quite the other extreme point of view which insists in practice that the sole objectives of geometry teaching are a rote knowledge of geometric theorems and some ability "to work originals," the last conclusion is of utmost importance. Indeed, to hold that the ability to think consists merely in knowing what to think is quite as inconsistent with our social order and educational ideals as to hold the other extreme.

When, however, the reader dips into the chapter on evaluation and into the appendix of Fawcett's study, he finds fascinating data, somewhat contradictory to the conclusion that reflective thinking has been generalized and applied to nonmathematical situations. Eighteen of the pupils participating in the experiment wrote a subjective evaluation of the experiment. Most of these eighteen made general enthusiastic comments on how much the course meant to them, how sensitive they have become to assumptions and advertisements, and how real and alive geometry has grown. But one

[17] Fawcett, *The Nature of Proof*, p. 117.
[18] *Ibid.*, p. 119.

unwary lad (or lassie) wrote, "This year's geometry class has changed my way of thinking more than any other influence in my life. I am not just accepting things now unless their definitions and assumptions coincide more or less with mine . . . " [19]

In the appendix are six essays on the evolution of proof, written by students participating in the experiment. Two are representative of the best of these essays, two middling, and two poor. All the essays have in common a sketch of the historical background of proof, starting with the Egyptians, proceeding through Pythagoras, Euclid, and Aristotle, Tarski, Lucasiewicz, and Korsybski. They also have in common *lack of bibliographical citation* or other evidence of acquaintance with one *original work of any one of these men.* A total of four references is cited in the six essays, three of them popular accounts of mathematical development, one a fairly authoritative history of mathematics.

A paragraph lifted from its context in one of the essays, yet not too atypical of the substance of the essay, gives further insight into the type of reflective thinking developed among the students.

> Now as man goes on to reach greater peaks in his Search for Truth he knows the limitations of his own powers. He knows that he can not find absolute truth. *He knows that something is true only as long as it complies and fits into his own civilization.*[20]

Certainly this conclusion did not logically develop from the Euclidean method. It is an example of a philosophy which grows not out of geometry, nor out of the Euclidean method of proof, but out of a prior concept of the nature, not of proof, but of truth.

Again, we need to return to the golden mean between the blameable extremes which lie in subject matter as such, on the one hand, and method as such on the other. Teaching the ability to think requires that truth be taught because it

---

[19] *Ibid.*, p. 114.

[20] *Ibid.*, p. 131. Italics are mine.

is important in and of itself, that if geometry be taught, it be taught because it is important in and of itself, because it is intimately related to modern living—to all construction activities, to display advertising, to all navigation whether pedestrian or aerial, to industrial design, and to all human operations which require the understanding and control of materials in space. It requires that other subjects be taught because of their human importance. And mediocrity in the Aristotelian sense further requires that method of thinking be taught in all subjects and throughout the entire curriculum because it is the only means to the discovery and understanding of truth and to its application to old and new situations.

The Functional Curriculum

Discussion of the ability to think is intimately related to the concepts of the functional curriculum. Ability to think is one of the abilities which the curriculum is intended to develop in the child—even in the whole child, all over and through.

A functional curriculum is merely a curriculum which functions in the life of the pupil, either during his student or his poststudent days. To all educators and at all times the curriculum is functional. Latin as a subject is said to be functional because it is useful in teaching English, because there is beauty in Latin poetry, because it was the language of the Romans who developed a world civilization, etc., etc.

Educators do not disagree that the curriculum should be functional. The question is: What is functional, to whom, and when? With newer concepts of the scope and sequence of the curriculum pre-empting the field, the term functional has become attached to the newer concepts and the older ones —rooted in the subject disciplines—are by implication academic and nonfunctional. Thus the classical curriculum of St. John's College is condemned as a return to the dark Middle Ages, a flight from reality, an ostrich approach to modern living.

Three curriculum patterns are identifiable in modern edu-

cation: (1) the "disciplines" such as mathematics, science, philosophy, (2) student interests such as shoes and ships and sealing wax and "What are you interested in doing today, children?" and (3) adaptation to life problems such as housing, modern technics and modern living, propaganda analysis, human relations, etc. There are variations and combinations of these, of course.

On the one extreme is the curriculum as a body of subject matter which is to be learned because of its internal consistency without any personal reference or social application, and on the other, huge gobs of projected experience organized in terms of broad modern problems grouped around so-called basic human needs.[21]

Basic to all three curriculum concepts is the function of growth, competence, and adaptation of the individual in the curriculum to social situations and problems. But beneath any concept of growth there must be a recognition that growth takes place through a series of differentiations, and reintegrations [22] subsume a manifold of differentiated systems. What is actually sought in the curriculum based on adaptation is the integration of the individual so that life is not a series of unrelated situations, but a harmonious pattern in which everything is related to everything else.

In rebellion against a curriculum which consisted of a series of subjects, unrelated in the curriculum either to each other or to their significance in life round about, those educators who follow the child-interest and the life-adaptation approaches, have found the fault in the subjects rather than in their method of treatment, and have, as a result thrown the subjects out of the general education curriculum. In their place they substitute giant problems.

Considering the curriculum as the environment for growth, considering that growth consists in differentiation, and con-

---

[21] For an excellent brief summary of curriculum rationale see the book review by Paul Leonard and James B. Burr in *Curriculum Journal,* XI (February 1940), 89-91.

[22] Dewey's "reconstruction of experience."

sidering that differentiation is progressively refined, we may conclude it is not by inertia alone that the application of the "progressive education" is being obstructed in secondary education.

"Progressive education" has proved successful and significant on the elementary school level because growth consists in differentiation and early differentiation is always gross. In the elementary school children not only learn basic habits and skills, but are provided life-space in a series of experiences out of which they can make gross differentiations in connection with their in- and out-of-school life.

After from six to eight years of the elementary curriculum, the need arises for the kinds of differentiation which will give a basis for understanding and manipulating life situations. It is entirely possible that this type of differentiation consists in deep and penetrative experience in the systems of knowledge differentiated through the ages as basic to the experience of life. In other words, students need and seek an order out of basic principles. Or, Burton Fowler says, "Children like their education straight."

In face of this, the predominant tendency in secondary school curriculum development is to substitute grosser and grosser experiences for the old subject-matter organization, so that a student must now pass through the general college before he is permitted detailed study of internally logical bodies of knowledge—before he can discover the order of the principles which underlie adjustments to life problems. No longer is a little knowledge a dangerous thing.

The type of curriculum organization advocated by the life-adjustment proponents harkens back to the whole child notion in that it is an attempt to apply the concept that the organism reacts as a whole to the total situation. Life adjustment problems are thought to be "total situations," and hence consistent with the new "organismic" psychology. As in the case of the whole child, this is begging the question "by an assumed integration," which may be a most undesirable type of authoritarianism.

Criticism of a type of curriculum which is organized on the assumption that growth consists in increasingly gross differentiations must not be interpreted as an endorsement of teaching "subjects" as such without any attempt to relate them to each other, or to their significance in modern, everyday living. It is quite as absurd to believe that teaching Aristotle's *Ethics* (contrary to the belief of "neo-formalists") purely as a product of the Lyceum of the fourth century B. C. will lead to a deeper understanding of and greater ability to act effectively in world society today, as it is to believe that this understanding and ability can be developed by teaching "personal orientation" in an orientation course and disregarding the problem of personal orientation in the biology and astronomy courses.

Aristotelian mediocrity in the functional curriculum development draws a distinction between meaning and significance, considers meaning in the dimension of depth, and significance in breadth, insists that in each "total situation" there are basic principles in operation, that control of the changing situation comes only through control of the principles, and that if principles are to be controlled they must be understood. Hence, there must be provision for teaching both the basic facts and principles *and* their significance to the areas of life adjustments in the modern world. The life-problems curriculum provides only for significance. "Subjects" must also be "experienced" if significant situations are to have meaning. And unless there is depth of meaning, significance is inextricably limited to the particular. Subjects must still be taught, therefore, not in fictional abstractions or in application without principle, but as a body of principles developed out of their application in the lives of students and their world—the rich intellectual heritage of man.

Henry Adams on Education

By CHARLES I. GLICKSBERG

HENRY ADAMS propounded no formal theory of education; yet his ideas on the subject are of considerable importance. His experience as a pedagogue was limited to a professorship of medieval history at Harvard University, which he held for a short period of time. He was satisfied neither with the system, liberal as it was, of which he had become a reluctant part, nor with the results his unorthodox methods secured. He had a self-protective horror of the typical professorial grind and regarded many of his colleagues at Harvard with distaste. Their interest in administrative details bored him. There was no snobbishness in his disdain; simply an inward recognition that he was not of their tribe, that their god was not his god. They often spoke a language he could not understand.

I

Henry Adams has written little that might, in a strict sense, be regarded as a contribution to educational theory. Nor is he, as a rule, quoted in any of the books that deal with educational ideas and methods as they developed in this country. Yet there can be no question that his books have exercised, and will continue to exercise, a stimulating and fruitful influence on the philosophy and practice of education, especially higher education, in the United States. His writings serve as an effective protest against many of the dominant educational tendencies, particularly the attempt to reduce education to a quantitative, deterministic science. For he was concerned primarily with the quality, not the instrumentalities, of education; the aim and end of education was as important as the means utilized, because the end shaped the means. And the end-result could be measured in only one way: in terms of life; the integration it effected; the energies it called into play; the range and kinds of satisfaction it afforded. Education should

enable one not only to live better, to achieve understanding and a measure of rational happiness, but also to gain a synthesis of values, a solution of the mystery that envelops the world. In short, it should provide its devotees with a system of ethics and a valid philosophy of life.

Such an ideal was obviously no part of the established curriculum in the nineteenth century. Consequently Henry Adams felt that the years he had spent at Harvard as an undergraduate were a dreary waste of time and effort. Throughout his life he kept up a consistent barrage of criticism directed at the educational system of his own country. It had failed him during his most impressionable and critical years; it had not aided his intellectual development, and he not unnaturally felt a deep resentment. The indictment he draws up has implications that extend beyond the vicissitudes of his personal history. By calling his autobiography *The Education of Henry Adams,* he clearly indicated that he was using the term "education" in a symbolic sense. Education at its best was occupied not with the task of filling empty receptacles with graded knowledge of various kinds; it was an active process, dynamic in function, organic in aim, and connected with the whole universe of energy. Its primary duty was to further the completeness of growth of the organism-as-a-whole; its purpose was to teach man how to cope with and master the central problems of nature and society. Above all, its aim was to help him in the struggle to find himself, to establish a true relationship between himself and society, between himself and the universe.

Precisely here was the place where American education had failed. It had been conscientious, elegant, steeped in tradition, but remote from fundamental issues, without direction, without the power to promote a synthesis of knowledge. It looked with smug conservatism towards the past, on the assumption that the stored-up wisdom, the preserved culture of the past would be enough to satisfy the mind's hunger, the spirit's craving. Enamored of the past and its established values, educational practice ignored the vital problems of the

age: science and sociology, politics, the laws and deeper movements of history, the contributions of art. The "science" of education was guilty not so much of failing to provide adequate subject matter as of blindly ignoring the ultimate aim and basic function of the educative process. "From cradle to grave this problem of running order through chaos, direction through space, discipline through freedom, unity through multiplicity, has always been, and must always be, the task of education, as it is the moral of religion, philosophy, science, art, politics, and economy. . . ." [1]

II

Henry Adams was born between two worlds and never felt at home in either. Life was an adventure in understanding, but his education, he complained, had unfitted him for the practical world. This was to be his central theme, the text of a life-long sermon. What he had picked up at school was what other cultivated and well-to-do young men were taught, but it gave him small satisfaction. He had to discover for himself that the character of the country had changed radically, that it was no longer possible to proceed along the old lines. Immediately after graduating from college he felt the need of preparing himself for some useful career. He intended to start humbly and rise to influence by sheer merit, not by virtue of his family name or connections. All the stars pointed to his adopting the profession of law.

If that was to be his destiny, he would prepare himself for it thoroughly: he would specialize in one branch of the law, he would spend some time in Germany studying German and Latin. There were, of course, other things besides the law that could by no means be neglected. Law was but part of a man's life; the main object was to live! Narrow-minded specialization to the exclusion of all other values was out of the question. It was certainly not in accord with the ideal of wholeness and harmony Henry Adams had set for himself.

---

[1] *The Education of Henry Adams* (Boston and New York: Houghton Mifflin Co., 1918), p. 12.

And so, besides trying to master German and reading the law, he attended the theater and the opera and visited art galleries and museums.

He was determined to make the most of the two years he hoped to spend in Germany. He knew his own limitations; he had his eyes fixed on the heights, but he was no Don Quixote tilting at windmills. He would not deceive himself with flattering illusions; for a young man of his years he was singularly objective in his self-estimate. He felt that life should have direction, meaning, purpose, but then as well as later he could not find an answer to the questions that perplexed him. He could adjust himself to but could not accept the industrial world that was in the process of emerging. At a comparatively early stage he had to face the problem of morals in politics, the degree to which justice was involved in the struggle for power between nations. He still defended the moral values of his New England environment, but the pressure of events drove him relentlessly from one line of trenches to another. Where in modern society could he find a moral principle to justify the numerous acts of aggression that were taking place? Under what conditions, he asked, were robbery and murder to be considered a virtue? "Education founded on mere self-interest was merely Guelph and Ghibelline over again—Machiavelli translated into American."[2] No member of the Adams clan could accept such a doctrine of self-interest.

But what had his stay in Europe to do with his quest for an education? He wished to find the meaning of human fate, the law governing history and society. In order to discover it, he felt that his life should follow some rational order of progression, that each experience should contribute to the sum total in the same way that every stone has its functional place in composing the beauty of a cathedral. Unfortunately a character is not thus formed nor does life proceed always on rational, architectural principles. Much of existence is fortuitous, unaccountable, the product of change and chance.

---

[2] *Ibid.*, p. 85.

Who shall say what experience in youth or age helps to provide the open sesame to understanding?

III

Henry Adams was more successful as a professor of history at Harvard than his modest disclaimers would lead us to suppose. The test of teaching lies in the impression a man produces on his students, his mastery of subject matter and his ability to present it effectively, his power to inspire thought, to set up high standards of scholarship. In each of these respects Henry Adams has been spoken of with respect and gratitude by a number of his more gifted students. It is true, however, that the life of speculation and not teaching, was his métier. He desired to reach ultimate issues, to grapple with truth in its last lair; he wished to make of teaching an exciting search for final truths. No wonder he insisted that he had failed. Philosophy and moral problems were not fit for classroom discussions. History as a dry catalogue of events, a recital of facts and dates, did not interest him. How was one to teach history and yet avoid fundamental issues? What clue had he to offer for solving the mystery of the Middle Ages? While not altogether wasted, the seven years he had spent as a teacher, he concluded, were wasted.

They were not apparently wasted on a few talented students to whom he imparted his conception of historical scholarship. In his advice to Henry Cabot Lodge, Henry Adams gave a clear outline of the method he himself followed in historical research. First of all, it was a question of mastering the scientific method of investigation. It was essential to exhaust all phases of a subject. Habits of exacting thoroughness were thus built up. German scholarship set up a standard of monumental thoroughness; German scholars generally did excellent work. By following their method, one could learn to make a creditable contribution. This was his own aim as a teacher of history—to teach others how to do their best work. It made little difference, he maintained, what a man taught at a university; "the great thing is to train scholars for work,

and for that purpose there is no better field than medieval for future historians."[8] The great object of the historian is to gain a general perspective of his field of inquiry; he must find out the motive force that drives men and the goals they pursue, consciously or unconsciously. But how he is to find this out, what methods he is to employ, Henry Adams does not tell us.

The ideal of the graduate school as exclusively a training ground for future productive scholars has justly been attacked as inadequate and harmful in its effects. Scholarship, the kind which reaps its reward in a labor of specialized research, is not the only nor the most important function of a university. There are other educational goals equally worthy. Henry Adams, however, would have been the first to concede that point. At no time does he insist that the university should confine itself to the breeding of scholars of this type. But if that is one of its aims, then it must see to it that the scholars turned out are worthy of their hire, that they are genuine and not shoddy products. And his requirement that the historian should be interested not only in the accumulation of facts or in documentary research or in the painstaking ransacking of archives but also and primarily in the effort to understand the motives and forces that underlie the movements of history and which determine the actions of men—that requirement was a repudiation of fact-grinding scholarship. Such a requirement was, however, in no way incompatible with the exhaustive gathering of factual material, as Henry Adams demonstrated in his own work.

IV

Henry Adams persistently declared that his efforts at education had ended in miserable failure. As he himself put it, for about half a century he had gone on learning and had received little guidance or encouragement from any one. In the field of history nothing of enduring value had been accom-

[8] *Letters of Henry Adams,* Worthington Chauncey Ford, editor (Boston and New York: Houghton Mifflin Co., 1930), Vol. I, p. 236.

plished; it was an odyssey of error and confusion. History revealed no continuity, no line of progress.

Henry Adams sought to complete his education by undertaking, alone, to run order through chaos, direction through space, connected patterns of meaning through the course of history. It could perhaps be done if history were reduced to a science. But history could become a science only on the condition that it followed the light of truth no matter where it leads, no matter what powerful interests are antagonized. No matter what the consequences will be, the truth must be taught; otherwise there is no possibility of arriving at a science of history. Henry Adams does not draw back from the implications that all this must necessarily have for the teacher of history. It is the bounden duty of the historian to teach a doctrine or hypothesis, regardless of what special organizations are endangered or overthrown.

Henry Adams discussed this problem in full detail in "A Letter to American Teachers of History." Here was the message he wished to pass on to his colleagues; here was the ripe fruit of his lonely studies and long reflection. It is this letter that must be carefully studied if we wish to grasp the full significance of his contribution to educational theory.

The sphere of action of the historian was limited to that of human action, but how to interpret that action was still a matter of embattled controversy. Henry Adams could not accept what science asserted to be the case, that the energy expended in the course of historical development was identical with mechanical energy. There was, he believed, some constituent quality which differentiated social energy from physical energy. But the vital energy that was an expression of mankind was still an impenetrable mystery.

Perhaps the second law of thermodynamics could provide a useful clue. The law had prevailed everywhere except in human history. Obviously, no resistance to the law could prevent its establishment if it developed superior force. When confronted with this situation, what was the history teacher to do: accept the theory or hold his tongue or resist it by all

that is holy? Shall he agree that history is not a science, society not an organism?

Henry Adams poses this question: Suppose the theory that there was a universal tendency towards dissipation of energy were accepted as true and accepted as such, what then? What defense is possible against the assault of the physicist with his law of entropy? There is no avenue of escape except through the mysterious entity called Mind. But what is Mind? If thought, reason, and will are electrochemical processes akin to mechanical energy, then the second law of thermodynamics rules supreme and must dominate the philosophy of history. How then could one conscientiously teach that the whole aim and purpose of education was the development of Consciousness or Reason or Will? To the historian, after all, the highest miracle is the production of thought, a creative manifestation peculiar to man; but if instinct rules thought and if thought is nothing but the expression of a moribund instinct, what is left? There is the horn of the dilemma on which the modern university is impaled, for the university "has no proper function other than to teach that the flower of vital energy is Thought, and that not Instinct but Intellect is the highest power of a supernatural Will;—an ultimate, independent, self-producing, self-sustaining, incorruptible solvent of all earlier or lower energies, and incapable of degradation or dissolution."[4] Henry Adams sought to strip himself of prejudice and discover what fundamental objections could be opposed to the theory that organic as well as inorganic nature showed a universal tendency to the dissipation of energy. The sole defense of the evolutionist must be that man and man alone has the power of reversing nature's processes; that he can raise her energy to higher levels of intensity, and thus arrest the headlong tendency towards extinction.

But what is to become, Henry Adams asks, of the form of energy known as Thought? Why the primitive energies of nature should have turned to the production of reason is, at

[4] Henry Adams, *The Degradation of the Democratic Dogma* (New York: Macmillan Co., 1919), p. 206.

present, beyond our understanding, beyond the scope of scientific explanation. In its actions, the world that can be empirically observed displayed no element of the supernatural. Yet the universe, though infinitely complicated in structure and function, did not ultimately contradict itself, and what contradictions appear will in time be resolved. Though human beings have steadfastly rebelled against the dominion of scientific law, in the end they must yield.

There is the heart of the modern tragedy. Man, once the lord of creation, has really never abandoned his proud faith in the supremacy of Reason. Evolution confirmed his faith, and science for over half a century supported his conviction. Then came the irrepressible conflict. The doctrine of progress was turned upside down. Many fixed ideas and beliefs were canceled. What then is the solution? Henry Adams replies that the teacher of history must master the field of science; he must fight the physicist with his own weapons, speak his language, employ his conceptual terminology. "If the teacher of history cares to contest the ground with the teacher of physics, he must become a physicist himself, and learn to use the laboratory methods. He needs technical tools quite as much as the electrician does. . . ." [5] The historian must come to grips with the second law of thermodynamics. He should know something of the history as well as philosophy of science. It is not enough to be a specialist buried beneath a pyramid of statistics. He must decide whether man is the creature or creator of his environment. He must formulate some satisfactory conception of the nature of society. Another Newton is called for who will be able to synthesize the sciences of physics, biology, and psychology and integrate them with the study of history.

The challenge of science had to be met. Unlike most of his colleagues, Henry Adams could not rest content with traditional laws, statements based on authority, the certitudes of the past. The new learning had to be tested and assimi-

[5] *Ibid.*, p. 237.

lated. At his age he could not very well convert himself into a professional scientist, he could not begin his apprenticeship as a physicist and conduct experiments in the laboratory. He did the next best thing: he read widely in the related fields of geology, biology, anthropology, and physics. He tried to reconcile this knowledge with his own ideas and beliefs about the world. His efforts to run order through chaos, unity through multiplicity, and his consciousness of failure form an adventure of the mind that is of exceptional interest to American education and American culture in general.

The psychology of ends is as important for an understanding of the educative process as a knowledge of the means to be employed. Unless we know where we are heading for, we cannot decide what road to choose. The incentives and the interest that must accompany all mental journeys will largely be absent if attention is confined to the immediate and the practical. A synoptic view must be taken, a vision of the needs of man as a whole, his fundamental requirements and his final goal. Henry Adams sought to take that view, achieve that vision.

What Henry Adams insisted on, in and out of season, was the need for an education that would satisfy the cravings of the human spirit; an education that would be responsive to the *Zeitgeist* but which would also seek a universal and enduring outlook; in short, an education based on living values; an education that would promote intellectual growth, a spirit of skepticism, that would lay the foundations for maturity with its synthesis of disparate and conflicting views. He was not interested in the science of knowledge but in the science of life, if it could possibly be achieved. The science of society was far more important than a science of physical forces. Knowledge was primarily a means to an end, not an end in itself. It was a means to the end of understanding, and understanding was the gateway to life. This, in brief, was the meaning and purpose of education.

If education was to cope with the basic problems of the time, it had to free itself from the cramping clutch of tradi-

tion. It must be experimental, progressive, uncompromising. It must endeavor to find out and promulgate the truth even when the truth seemed opposed to its own interests. It must not wait to certify an idea until it becomes respectable. Such an ideal, however, is difficult of attainment. The spirit is shackled and confined by the body in which it is incarnate. The aims and ends of education are conditioned by the nature of society, the state of public opinion, the needs and wishes of those who desire to be "educated." In this respect, the educator is a public servant, a functionary who obeys rather than leads. Henry Adams was impatient with such an attitude of subservience on the part of the teaching profession. Teaching that was merely an inventory of the illuminations and intuitions of the past was ineffectual. It was of little value if it did not guide and inspire and encourage the exploration of the unknown.

The universities, Henry Adams felt, had given him nothing that he could use later on when he discovered the depth and urgency of his intellectual needs. He had to cut himself loose from traditional beliefs and ways of thought before he could start out on his voyage of discovery. He had no stars to steer by. Darwin and Marx, the two men who had made the most revolutionary contribution to the ideas of his time—they were not mentioned at Harvard when he was an undergraduate. Henry Adams was compelled to take up the quest alone. The books which record the experiences of this pilgrim of the Absolute are more important than he professed to believe. His struggle to gain "an education" became a symbol of what education at its noblest should strive to achieve. He was not interested in methodology. He wrote nothing that concerned itself with curricular problems or pedagogic devices. His vision was broad, humanistic, his outlook philosophical. It is the philosophy of education, in its widest sense, that engaged his attention.

Accent on Cooperation

By KARL W. BIGELOW

THE AMERICAN Council on Education was founded as a cooperative enterprise and its interest in voluntary association for the promotion of desirable educational ends has always been sustained. No one can have been surprised, then, when a subcommittee of the Council's Committee on Problems and Plans, recommending the establishment of a Commission on Teacher Education, urged that "the utmost of ingenious collaboration be exercised to draw into this study all of those associations and institutions whose experienced judgments may contribute to the solution of the problems involved."[1] The Commission itself, once formed, accepted this mandate with enthusiasm and has sought to act consistently upon it. It has, indeed, assumed that its function is not so much to *awaken* a widespread interest in teacher education as to *support* that interest, already clearly manifest and rapidly growing, and to *aid* individuals and institutions to put into action the impulses generated thereby. The purpose of this paper is to report progress and to draw general conclusions from experiences to date.

One pattern of cooperative action was, as a matter of fact, happily established for the Commission before its own creation. While the plans for the establishment of that body were still forming, President Zook of the Council called together representatives of six educational associations that are chiefly concerned with problems of teacher education. Out of this meeting grew a plan for a jointly sponsored annual Conference on Teacher Education to be held at the time of the regular convention of the American Association of School Administrators. The first such conference was held at Atlantic City

[1] *Major Issues in Teacher Education,* American Council on Education Studies, Series I, Vol. II, No. 4 (February 1938), 43.

in 1938, the second at Cleveland a year later, and the third at St. Louis in February of this year.

The original Joint Conference on Teacher Education was sponsored by the Council and the following organizations: the American Association of Teachers Colleges; the Municipal Normal School and Teachers College Association; the National Association of Colleges and Departments of Education; the National Association of State Directors of Teacher Education and Certification; the National Association of Supervisors of Student Teaching; and the National Society of College Teachers of Education. Since 1939, however, the Commission on Teacher Education has represented the Council. This year, moreover, the sponsorship was broadened to include the following additional educational associations, all deeply concerned with one or more aspects of the pre-service and in-service education of teachers: the Association for Childhood Education; the Department of Classroom Teachers of the National Education Association; the Department of Elementary School Principals of the National Education Association; the Department of Supervisors and Directors of Instruction of the National Education Association; the National Association of Secondary School Principals of the National Education Association; the National Institutional Teacher Placement Association; the Society for Curriculum Study; and the Teachers College Personnel Association.

The Joint Conferences on Teacher Education, and the dinner meetings for officers of sponsoring organizations that have regularly followed them, have provided opportunities for the discussion of larger issues of common concern and for the presentation of progress reports regarding activities with which the Commission is associated. There has been no suggestion that the cooperating associations should in any way abandon their independence of judgment and action. A heartening sense of unity has, however, been promoted; and interest in and understanding of each other's purposes and practices have been enhanced. It may well be that other forms of cooperation will later be spontaneously adopted.

A development related to the annual Joint Conference has been the production, first by the Council and later by the Commission, of a special publication containing information regarding all events relating to teacher education and occurring in connection with the American Association of School Administrators' convention. From the outset this publication has presented the program of the Joint Conference itself, followed by the full programs of each of the organizations sponsoring that affair. Since 1939 an additional section has been included which lists in chronological order all meetings and other events scheduled under whatever auspices at the time of the convention and dealing with questions of teacher education. The 1940 issue, "Teacher Education at St. Louis," required sixty pages—an index of the widespread current interest in its subject. There appears to be general agreement that this combined program has proved of real value to those concerned with the education of teachers; and the consensus is that it has contributed to increasing attendance at the various meetings to which it has drawn special attention.

At the 1939 Joint Conference at Cleveland announcement was made of a major cooperative activity that the Commission was about to initiate. This had been planned in accordance with certain principles on the basis of which that body had undertaken to operate. One of these was "that the Commission should stimulate, in every feasible way, cooperation in teacher education"; another that it "should, so far as possible, work directly with and through already existing groups and agencies concerned with the education of teachers"; a third, that it "should not seek to impose any plan or pattern on the individual groups with which it may be associated." [2] Following these principles it was proposed to set up a cooperative study of the education of elementary and secondary school teachers at both the pre-service and in-service levels, in which a representative group of teachers colleges, liberal arts colleges, universities, and school systems would be invited

[2] *Cooperation in the Improvement of Teacher Education* (Washington: American Council on Education, February 1939), pp. 7-9.

to join. Limitation of the number of cooperating units was regrettably dictated by limitation of resources. However, the Commission's plan was predicated on the belief that facilitation of the efforts of its immediate associates to improve their programs of teacher education would lead to results of the widest interest and significance.

In June 1939 the Commission selected thirty-four units for participation in the Cooperative Study,[3] a task made extraordinarily difficult by the gratifying readiness of many other outstanding institutions to share in the new enterprise. The group as finally formed constituted a mosaic in which various geographical areas, various types of collegiate institution and school system, and various special activities in the field of teacher education were as well represented as seemed possible. The cooperating institutions understood that the Commission was not proposing to tell them what to do, that while it expected its representatives would prove helpful it was assuming that its affiliates would continue to guide their own destinies, and that, consequently, it had largely refrained from

[3] The participating units are—*Universities:* Columbia University, New York City; Ohio State University, Columbus, Ohio; University of Nebraska, Lincoln, Neb.; University of North Carolina, Chapel Hill, N. C.; Stanford University, Stanford University, Calif.; University of Texas, Austin, Tex. *Liberal Arts Colleges:* Claremont Colleges, Claremont, Calif.; Middlebury College, Middlebury, Vt.; Oberlin College, Oberlin, Ohio; College of St. Catherine, St. Paul, Minn.; College of William and Mary, Williamsburg, Va. *State Teachers Colleges:* Alabama State Teachers College, Troy, Ala.; Colorado State College of Education, Greeley, Colo.; Eastern Kentucky State Teachers College, Richmond, Ky.; New Jersey State Teachers College, Newark, N. J.; Southern Illinois Normal University, Carbondale, Ill.; Western State Teachers College, Kalamazoo, Mich.; Wisconsin State Teachers College, Milwaukee, Wis. *Negro Colleges:* Prairie View State Normal and Industrial College, Prairie View, Tex.; Tuskegee Institute, Tuskegee Institute, Ala. *School Systems:* Bedford County, Va.; Caledonia Central Supervisory Union, Vt.; Moultrie and Colquitt County, Ga.; Denver, Colo.; Des Moines, Iowa; Detroit, Mich.; Greenville city, county, and Parker district, S. C.; Houston, Tex.; Los Angeles city, county, Pasadena, Santa Monica, and Burbank, Calif.; Newton, Mass.; elementary schools of Glencoe, Kenilworth, Wilmette, and Winnetka, and New Trier Township High School, Ill.; Norris, Tenn.; Philadelphia, Pa.; Spokane, Wash.

planning the details of its own participation in the enterprise until it could receive guidance from the field.

Mainly for the purpose of obtaining such guidance, but also in order to discover common points of view and establish an *esprit de corps,* a two weeks' conference of delegates from cooperating institutions was held at Bennington College in August. About one hundred and twenty-five delegates participated. The group was distinctly heterogeneous. From the school systems came classroom teachers and principals, supervisors and curriculum directors, superintendents and assistant superintendents. These persons represented rural areas and small towns, suburban communities and major municipalities. Mingling with them were professors of education and of the various academic subject matters, deans of arts and of education, college and university presidents. These spokesmen for higher education had come from both publicly and privately supported institutions. All told, more than a score of states were represented.

When the conference opened two questions were uppermost in the minds of many of those in attendance. Could so mixed a group find it possible to talk a common language? If so, could it keep it up fruitfully for so long a period as two weeks? Those responsible for planning the meeting were confident that these questions would prove to have affirmative answers. The event demonstrated that they were right. It is of considerable importance to understand why.

The participants at the Bennington Conference started out with at least two things in common: a genuine concern with the problems of teacher education, and a desire to work with others in seeking their solution. To be sure, they saw these problems differently, and they varied in their judgments as to the most promising lines of attack upon them. Had they been asked to reach complete agreement as to these matters, they could hardly have done so honestly except by the employment of vague and ambiguous phraseology. Agreement of this character was not, however, sought.

What the delegates undertook to do was this: first, to

identify the major problems of teacher education, speaking for themselves, speaking for their colleagues back home, and speaking (so far as possible) for other institutions similar to those that they represented; second, to examine a dozen major problem areas [4] as thus revealed and to endeavor to reach conclusions as to how the Commission and the various types of college and school system associated with it might severally contribute to an attack thereon; and finally, to draw up general guiding recommendations with respect to the conduct of the cooperative study in which all were involved.

For the purpose of listing specific problems the participants met in groups corresponding to the types of institution represented: universities, liberal arts colleges, teachers colleges, larger and smaller school systems. Once the major problem areas were agreed upon, however, new groups were formed in which persons from each sort of unit were included. General meetings were held to hear and discuss reports from these various subcommittees of the whole. Evenings were devoted to a series of addresses and panel discussions. The general outlines of this plan of operation had been drawn by the staff of the Commission in advance, but conference committees took over once the group had gathered. With the barest minimum of centralized direction, the delegates tackled and carried out their agreed-upon tasks. The hours originally reserved for recreation were less and less employed for that purpose; every report was produced promptly; the published record of the conference runs to some 250 typed pages. [5]

[4] The following are representative of the twelve topics selected for consideration: How can a faculty best organize itself for a common attack upon the problems of teacher education? How may the understanding that teachers have of the developing child and the likelihood that they will translate that understanding into improved school practices be increased? How may the effective understanding that teachers have of a democratic society and of their role—and that of the school—therein be increased? How shall schools and higher institutions organize their programs of general education for teachers? How can schools and higher institutions cooperate to their mutual advantage in teacher education?

[5] *Bennington Planning Conference, Reports and Addresses* (Washington: American Council on Education, 1939).

There can be no doubt that this experiment in cooperation was a pronounced success. Suspicions were alleviated; mutual understanding and respect were increased; words and ideas that had been anathema were seen to possess at least a glimmering of sense; an *esprit de corps* grew with a growing recognition of shared intentions. Why was this? The question cannot be answered with scientific accuracy, but a response representing the consensus of numerous participants will certainly possess considerable significance.

The Bennington Conference was democratically conceived and democratically carried out. Those who attended had common interests and common purposes, but they were not concerned with controlling or manipulating each other. Their minds were upon a task that was theirs, and that was important to them—the education of teachers. They were not being asked to yield to the domination of other persons, but they were eager to counsel with each other and prepared to submit willingly to the power of reasonable ideas. Thus their thinking was directed to the formulation of a course of action, action whereby the success of that thinking might ultimately be tested. This was true not only with respect to their plans for the improvement of their own particular programs back home; it was especially the case in connection with their cooperative planning for participation in the study to which they were all so recently committed. These one hundred and twenty-five persons represented the Commission and nearly forty colleges and school systems, all on equal terms, all on the verge of a common enterprise. They had accepted a task in which they believed; it was evident that they were to enjoy full freedom to pursue that task according to their best judgment; to plan that pursuit together was an exhilarating experience and one that bred a warming sense of essential community.

But for all its value as an experience in cooperation, the Bennington Conference was removed from the various theaters of ultimate action so far as the improvement of teacher education was concerned. Indeed, the real test of the conference could only come when the delegates returned to their

schools and campuses. Would the conference participants be able to communicate their experiences to their colleagues? Would cooperative practices at the various colleges and in the various school systems be strengthened and increased? Would the spirit with which the Cooperative Study had been launched prove infectious?

It is too early to answer these questions either exactly or completely; to do so, indeed, will probably never be possible. Whatever emerges in the way of further cooperative endeavor in relation to the Commission's study must be the result of a multitude of forces, and the Commission itself proposes to avoid immodest claims as to any influence that it may have contributed. It will be of value, however, to describe certain post-Bennington developments that illustrate various types of working together. An exhaustive catalogue being impossible in this place, representative illustrations of various types of activity will be selected somewhat at random.[6]

School systems involved in the Cooperative Study were predominantly represented at Bennington by administrative officers. These persons manifested from the outset concern lest the phrase, "teacher education," should appear to imply that the continuous growth of the classroom teacher was the sole object of the cooperative study. They instantly agreed that the purpose should be the improvement on the job of *all* educational personnel (including the superintendent!), and that planning and acting in particular places ought to be the outcome of a fully democratic process. As a result school-system representatives left Bennington deeply concerned with the problem of how they might most effectively involve the full body of their colleagues in the cooperative enterprise. In the smaller systems this problem was not a difficult one to attack; but in the larger cities providing for the participation of several thousand teachers was no easy matter.

---

[6] Additional descriptive material may be found in a series of papers, read at the St. Louis convention of the American Association of Teachers Colleges and at the Third Annual Joint Conference on Teacher Education in the United States, and all published in the 19th Yearbook of the American Association of Teachers Colleges, 1940.

The example of Des Moines will illustrate a type of development which, with appropriate local variations, has occurred in a considerable number of the larger cities. In Des Moines a valuable basis for the extension of cooperative activity had been laid by conferences whereby, over three years, the twenty-one supervisors and directors on the superintendent's central staff had been developing a common point of view with respect to philosophy, goals, and democratic procedures. Equally helpful was two years' experience with curriculum study by democratically elected committees of classroom teachers. Out of this background and the Bennington Conference has come a further development. The entire body of educational personnel has discussed participation in the Cooperative Study, first as a whole and later in a series of smaller, but still representative groups. In each, two teachers act as co-chairmen (one from the elementary and one from the secondary level). Each group urged the formation of a permanent planning committee, but there was wide variation in the suggestions as to how this recommendation should be carried out. These suggestions were, accordingly, turned over to the local teachers' association for study, and this organization was able to propose a procedure that received general approval. The Des Moines planning committee has now, therefore, been established. It consists of ten elementary and ten secondary school teachers, one principal from each level, and one member of the central administrative staff. Candidates for membership were proposed by each school faculty, after discussion of important qualifications, and final selection was made by an election committee chosen by the teachers for that purpose. The planning committee is engaged in identifying problems of greatest common concern to the teachers of Des Moines and in setting up plans whereby those problems may best be studied and attacked by all concerned. A special summer problems laboratory for Des Moines teachers has already been arranged.

In the teachers colleges there has been a tendency to arrange for full faculty participation in identifying the local problems and planning for their better handling. At the

Western State Teachers College at Kalamazoo, for example, the entire faculty of over two hundred has organized itself into study groups to consider problems of general education, of professional education for both pre-service and in-service teachers, and of personnel and guidance. On the whole, membership in a particular group has been determined by individual preference although some persons have followed a second choice in order to ensure each committee's being representative of the various instructional divisions. Each of the three major groups has distinguished certain important problems, and subcommittees have been formed to work on each of these. It is reported that these democratic procedures have aroused enthusiasm, that a great deal of discussion has been generated that takes place informally as well as at regular meetings, and that mutual respect and understanding are being promoted. The group is eager to accompany discussion with action and evaluation as soon as possible, viewing the process of self-improvement as a continuous one requiring a mingling of speculation and modification of practices.

At Columbia University cooperation between Columbia, Barnard, and Teachers Colleges in planning and carrying out a five-year program of pre-service teacher education has been accelerated. Representatives of the three faculties are working together to develop a coordinated program to which concepts of general education contribute notably. Building on the general courses already provided for undergraduates, the program for prospective teachers offers a series of special seminars during the junior, senior, and first postgraduate years. These seminars represent a unified, progressively developing approach to the problems of education and teaching, and each involves several faculty members working cooperatively together. Something like forty staff members have been drawn into the seminars from the faculties of the three colleges, and these individuals have been conferring regularly with the intention of formulating a statement of objectives to serve as a guide for those in charge of the several units of the program, and also as a basis for evaluating the experiment. Various means of involving other faculty members

who are in contact with the students preparing to teach are being employed with a view to encouraging wide participation in the planning and appraisal of the program.

Among the most gratifying developments to be reported are those that have involved—or will involve—colleges and school systems beyond those formally included in the Cooperative Study. Five local workshops will be carried on this summer, for the benefit of teachers in Denver, Des Moines, Greenville County, Houston, Los Angeles, and New Trier Township, with the cooperation of Denver University, Drake University, Furman University, the University of Houston, various institutions of higher learning in and around Los Angeles, and Northwestern University. The State Teachers College at Troy, Alabama, has associated itself, first with the other teachers colleges and finally with all the publicly supported institutions of higher education in the state, in a cooperative study of the preparation of secondary school teachers. The University of Texas has initiated a conference of representatives of all the colleges and universities of the state that has resulted in the formation of a permanent council on teacher education.

Of particular interest is a projected state-wide conference on teacher education, to be held at the Eastern Kentucky State Teachers College, at Richmond, next September. The idea of holding such a conference grew out of Eastern Kentucky's participation in the Cooperative Study, but invitations are being issued by a committee consisting of the heads of all the publicly supported institutions of higher learning in the state. The conference, which will continue for a week, will be attended by some two hundred persons. Representatives of the state department of education, of the private liberal arts colleges of the state, and of the public schools will be included.

In all of these developments the Commission on Teacher Education has been privileged to assist. It is being aided by a growing company of consultants drawn from the faculties and staffs of a widening circle of universities, colleges, and school systems. In providing facilitation of this and other

sorts the Commission constantly asks itself whether the activities with which it is assisting are capable of being continued without outside aid, provided their value is demonstrated. It proposes, moreover, to report on techniques and outcomes of such cooperative practices from time to time in order that as many as possible may benefit from the lessons of these experiences.

In the early part of the present year the Commission was enabled to move into a new area and to offer support to groups that were eager to launch cooperative programs for the improvement of teacher education in the states of Georgia, Michigan, and New York. While independently conceived, these plans in general contemplate the involvement of all interested colleges and universities. In each case state officials have offered their support, and it is expected that the public schools will cooperate fully. Here, then, in three states, groups concerned with the education of teachers are undertaking to work together for three years in terms of common social and professional responsibilities. These efforts are certain to command wide attention. The state is one of the important units, so far as teacher education is concerned. Too often, however, it has been a battleground of competing interests in the field. Voluntary attempts to resolve conflicts through a cooperative endeavor to enhance the educational well-being of the community deserve all encouragement.

Description of the various types of cooperation for the improvement of teacher education with which the Commission is most closely associated ought to be accompanied by a recognition of important cooperative activities being carried on under other auspices. For the past two years the directors of teacher training and certification in the southern states have, with the sponsorship of the Southern University Conference (the Southern Association of Colleges and Secondary Schools cooperating), been working together on problems of uniformity and reciprocity in certification. The North Central Association is now launching a comparable study, as well as a special program relating to the preparation of secondary

school teachers in liberal arts colleges. The Association of American Colleges has established its own Commission on Teacher Education and is planning to devote its next annual meeting to this topic. Such organizations as the American Association of Teachers Colleges, the National Association of Colleges and Departments of Education, the National Institutional Teacher Placement Association, the National Society of College Teachers of Education, the National Association of Supervisors of Student Teaching, and the Teachers College Personnel Association are regularly engaged in the cooperative carrying on of special studies, in the preparation of yearbooks, in the holding of special conferences, and the like, all bearing on problems of teacher education.

The Commission, of course, heartily favors such cooperative activities, especially when they are being guided by organizations that will continue in existence long after it itself has passed from the scene. Its aim is not to compete with these endeavors, but to encourage, aid, and complement them. Especially it hopes to contribute to the evaluation of cooperative techniques in terms of their ultimate fruitfulness. This paper may appropriately conclude, therefore, with some speculation on this subject.

The very word "cooperation" implies mutual activity with the object of getting something done. Such cooperation may begin on the level of theorizing, but if it remains on this level it is in serious danger of being barren. Persons may agree on principles, or at least on the language in which principles are expressed, but if those agreements are not tested in practice not much has been accomplished. For this reason it is important that those who undertake to cooperate should have a common task that requires considerable action on the part of each.

The first step in any cooperative endeavor, then, should be the identification of common purposes. These often exist without being adequately recognized. Such recognition is frequently made difficult by overemphasis on differences; and to this a high degree of specialization, in education or in function,

is bound to contribute. Teacher education, like other forms of education, has suffered from such overemphasis. Yet all teachers, including college teachers, certainly share in a responsibility for promoting the social welfare and the welfare of the individuals who come under their influence. Equally sure is it that the vocational intentions of those individuals affect their needs in ways that have significance for all their instructors. Thus the education of teachers is a proper concern of most, if not of all, college faculty members. By a similar analysis it can be shown that this concern is equally shared by the teachers themselves—both during and after the period of their preparation—and also by their associates in the school systems in which they are ultimately employed. The Bennington Conference demonstrated clearly enough that a sense of this shared responsibility is capable of being deeply felt, under appropriate conditions, by a group that would ordinarily be thought of as markedly heterogeneous. Subsequent experience has deepened the conviction that there is a growing readiness on the part of persons holding all sorts of educational positions to recognize that education of teachers is vitally important in our democracy, to desire to share appropriately in the improvement of teacher education, and to welcome opportunities for cooperation to that end.

A common task, however, will not guarantee cooperation. Common intentions are equally requisite. We may all be concerned with the education of teachers but if our convictions as to what constitutes a good teacher vary significantly we can hardly work together effectively. Cooperation requires, therefore, a clarification of objectives. At this point, there is a peculiar danger that we will take up uncompromising positions in terms of conflicting ideals unchecked by reference to practical situations. For this reason the Commission is particularly happy to be associated with practicing teachers and school administrators. The advantage of this arrangement was demonstrated at a certain meeting at Bennington. Conflicting ideas regarding the preparation of teachers had been expressed and there was evident some danger that uncompro-

mising positions would be held when the chairman asked a wise and experienced superintendent who was present to testify from his point of view—and the crisis was evaded.

Actually there can be little doubt that much obstructive disputation about teacher education is due to a lack of common experience, especially of experience with the situations in which teaching—and particularly good teaching—is actually carried on. Equally obstructive is a mutual suspicion which can, however, perhaps be best removed by actual experience in earnest cooperative endeavor. If we can succeed in agreeing upon common tasks and identifying common intentions a foundation has at least been laid. The next requirement is compromise in the adoption of practices, with the understanding that these are to be evaluated as skillfully as possible and then modified in the light of cumulative experience. This implies a continuous observation of results in practice and, of course, an honest weighing thereof against basic intentions.

At this point we run into a major difficulty that it would be folly not to recognize. In our culture it is not easy to admit errors of judgment; and it is especially difficult to agree that the contribution we have been trained to make, and in which our personal security is bound up, is of less significance than we had supposed. It may be that so long as personal rewards depend upon the esteem in which personal specialties are held, only a few rare individuals will be able to be fully objective on this subject.

We may, however, hope to move in the direction of genuine cooperation by the cultivation of those elements to which reference has here been made. These are elements that lie at the heart of democracy: respect for human personality; regard for the common welfare; and an eagerness to abide by the evidence regarding the consequences of particular courses of action. Such cultivation not only breeds but requires cooperation—in teacher education as in every other human enterprise.

The Relation of Dental Education to the University Program*

By RAYMOND A. KENT

IN A DISCUSSION of the relation of dental education to the university program we have set for us a simply, clearly stated problem. On the one hand is dental education, and on the other, the entire range of education which legitimately has a right to be included within a university. What of significance is shared by both?

What Is a University?

It was said in 1869 that there was "no near approach to a real university in America";[1] that is, that there was no work beyond the traditional college. Three institutions in this country pioneered in clarifying the concept of a university and in molding programs to that concept. There had been exploration and experimentation earlier, but their contributions were more systematic and lasting. These universities were Hopkins, incorporated in 1836; Clark, opened in 1888; and Chicago, fifty years old next fall.[2]

Gilman at Hopkins believed there is a direct relation between university teaching and research and the needs of everyday life. He said:

> It is reaching out for a better state of society than now exists; it is a dim but an indelible impression of the value of learning; it is a craving for intellectual and moral growth; it is a longing to interpret the

---

* Read before the Centenary of Dental Education in America, held under the auspices of the University of Maryland Dental School, Baltimore, Md., March 20, 1940.

[1] United States Commissioner of Education, *Annual Report for 1870*, p. 418, quoted in *Studies in Early Graduate Education*, Bulletin No. 30 (New York: Carnegie Foundation for the Advancement of Teaching, 1939), p. 3.

[2] See Chapters I, II, and III in *Studies in Early Graduate Education*.

laws of creation; it means a wish for less misery among the poor, less ignorance in schools, less bigotry in the temple, less suffering in the hospital, less fraud in business, less folly in politics; it means more study of nature, more love of art, more lessons from history, more security in property, more health in cities, more virtue in the county, more wisdom in legislation, more intelligence, more happiness, more religion.[3]

Harper at Chicago said:

. . . the University will in no sense deserve the name, if time and labor are not also expended in the work of producing that which will directly or indirectly influence thought and life outside the University. In other words, the responsibilities of the instructors are by no means limited to the work which is done in the classroom. The University, including every member of the University, owes to the world at large a duty which cannot be discharged in the ordinary classroom exercise. The true university is the center of thought on every problem connected with human life and work, and the first obligation resting upon the individual members which compose it is that of research and investigation.[4]

Every definition of a university which one hears today stresses research as one of the main features, but the type of research called for is frequently the conventional kind, so-called "pure research," modeled, it would seem, after the Biblical injunction to keep one's self "unspotted from the world." But I call your attention to the fact that both Gilman and Harper did not hold to this idea but instead to one that " 'the final appraisal of scholarship should be, not its prestige with scholars, but its value to human life,' and that the university should not be a retreat from the world so much as 'a base of operations in the world.' "[5]

Not infrequently today, as in the past, technological research and programs have been condemned as unworthy of

[3] Fabian Franklin, *Life of Daniel Coit Gilman*, pp. 202-3, quoted in *Studies in Early Graduate Education*, p. 30.

[4] *Annual Register of the University of Chicago*, quoted by President Harper in his address at the winter convocation, 1895 (*Quarterly*, May 1895, p. 11), from *Studies in Early Graduate Education*, p. 123.

[5] Albion W. Small in *The Biblical World*, March, 1906, pp. 217-18, quoted from *Studies in Early Graduate Education*, p. 124.

places in a real university. Quite on the contrary, the only justification for the support of the pure sciences, in the judgment of these fathers of the American university, lies in what such sciences contribute to technology and to other instruments for improving the conditions of human life.

Nor is this an ex cathedra utterance. Rather is its meaning implicit in the nature of higher education—or of any education for that matter—in a democratically organized society. True, the university is an educational institution, but education is one of the chief methods set up for the welfare of the members of society. The university is, therefore, a social institution. It is an institution which has a recognizable form of functioning in a given area of action, and it has grown up because of a widespread need and recognition of that need and a formally organized conception of the way to meet it. The university carried on in monastic seclusion may have value because it thereby perpetuates knowledge that would otherwise be extinguished, as was true of medieval European universities. But the full measure of their worth could not be taken until the work of their scholars was tested later in its application to the peoples outside of the institutions.

The pursuit of knowledge has no value except as it ultimately contributes to the welfare of man individually, collectively, or both. A university is an institution provided by society for the benefit of mankind through the outcome of specialized activities in the field of intellectual endeavor. The worthiness of the university for the material support necessary to maintain its educational program is measurable in the long run in terms of the contributions which it makes toward the solution directly and indirectly of the problems that impede the progress of mankind.

With What Should a University Deal?

What is the nature, then, of the problems with which a university should deal in order to serve its purposes as a social institution?

These problems may be roughly classified as material, and

ideological or social. Material problems are such as those dealing with wages, prices, markets, monetary standards, and the biological and physical sciences. Ideological problems are, for example, whether educational institutions should be free to find and teach the truth; whether the state and religion should be separated; whether education should be free; whether government should be operated as authoritarian, communistic, collectivistic, democratic, or socialistic.

In terms of academic subject matter the physical and the biological sciences deal with the objective, the material, while the humanities are concerned with ideologies.

But, though the distinction between the material and the social is real, it is not logically exclusive. Different ideologies affect not only the thinking about, but also the actual uses of, wages, prices, markets, and money. Material considerations have, alas, a direct bearing upon such issues as the freedom to be permitted in education. The theological doctrines stemming out of the Lutheran revolt did much to strengthen commerce and industry. The deepest dregs of bitterness associated with current "reform" legislation in this country, while expressed in opposition to theories of government, are in reality attempts to protect material wealth for the individual, and the traditional methods of securing it. Again speaking in academic terms, perhaps economics and sociology may be thought of as the lines of communication between these two fields.

In the practice of any profession these two phases—material and ideological—are present whether both be properly recognized or not. On the one hand, there are the material interests of the practitioner. How much time does it take for the individual to secure his license? How many dollars does it cost? What is the outlay necessary for his office equipment? What must be done to secure and to hold such a clientele as will reasonably guarantee him an income commensurate with the outlay preliminary to his admission into and successful continuance in the profession? What fees shall he charge? What is the best method of making collections? What steps

should be taken by the members of the profession individually and collectively to insure that the clientele shall be reserved for them against encroachment upon it by collective professional services at cut prices by social or civil agencies? These, I suggest, are some of the important material considerations challenging the attention of the practicing dentist, physician, and surgeon.

On the other hand, there are the ideological or social considerations. Can the charges made by the dentist, physician, or surgeon be paid by those who need the services? What happens to the needy who cannot pay? What is the attitude of the professional man toward the members of society who do not have the money to meet his charges? What is the effect upon the morale of individuals by reason of lack of proper health care due to the fact that they cannot pay? What are the resulting conditions upon public health, upon employment, upon business because of unserved individual health needs? What civic, social, and cultural results to communities and to society-at-large are due to some individuals being properly served and some not served at all?

The Rise of the Democratic Principle

It was the plundering of the many by the privileged and powerful few which gave rise to the movement for and culminated in the establishment of a democratic form of government. The terms "life," "liberty," and "pursuit of happiness" were not the outflow from the pen of an imaginative poet. Each expressed a desired goal which was the antithesis of an existing condition—"liberty" as against imprisonment without trial, "life" in contrast to capital punishment for relatively trifling offenses, "pursuit of happiness" in the place of no chance but abject drudgery and serfdom.

It was widespread ignorance that was the soil out of which sprang the unshaken conviction that the children of all the people had a right to the benefits of learning. On this idea as a foundation the free public school system was developed

and has now become firmly established as part of every one of our forty-eight states.

On the same idea was built education for the several professions at public expense. It is highly enlightening to remember that until the adoption of dental practice acts beginning in 1868 there was no effective public concern about dentistry as a public, that is, a social service. It is also highly significant that instruction in the first university dental school was started at the same time as this public concern became alive. The fact that the first professional training began in Baltimore one hundred years ago, that it was offered by a nonpublicly supported institution, and that it is still maintained by such institutions, does not nullify the thesis that public professions are still social functions. They are maintained, and in a democratic society always should be maintained, in both preparation for them and in their licensure, as public services, primarily for the social welfare and not for the benefits of those who engage in them.

First Relation of Dental Education to the University Program

The first and primary relation of dental education to the university program is for the university to provide the best possible grounding in the sciences appropriate to those who are to be in the front rank of oral health service.

It is a source of great encouragement to recall what the founders of dental education tried to do a century ago. Horace H. Hayden, one of the two men "to whom the dental profession, as well as the people of the whole civilized world owe everlasting gratitude"[6] for founding the first dental college, began by giving a course of lectures on dental physiology and pathology. In the "Annual Announcement of the Board of Visitors" for 1840, Hayden and Harris stated:

> It is well known to all that the wants of society resulting from diseases and distortions of the teeth, and the morbid conditions of col-

[6] "History of the Baltimore College of Dental Surgery," William Simon, in *Transactions of the Fourth International Dental Congress*, Vol. III, p. 292.

lateral structures, are multiplied and great; but it is only those who have made it a subject of particular inquiry who are aware of the fact that the number of those professing to control these diseases, and correct these distortions, who are competently educated dentists is small in proportion to the many engaged in the practice of this profession. . . . But the greater number of those engaged in the active duties of the profession—most of whom would gladly have availed themselves of suitable means of instruction could such have been commanded—have enjoyed but limited opportunities for acquiring information, neither do they possess the original power of investigation, acuteness of observation, and discriminating judgment, which fall to the lot of but few, and which are indispensable to supply the deficiencies of education. [7]

Subjects that were to be taught included anatomy, physiology, and pathology.

The introductory lecture delivered by Dr. Harris on November 3, 1840, included the following statement:

Elevate the standard of the qualifications of the dental surgeon to a level with those of a medical practitioner and the results of his practice will be always beneficial, which at present are frequently the reverse. Require of the practitioner of dental surgery to be educated in the collateral sciences of anatomy and physiology, surgery, pathology, and therapeutics, and the sphere of his usefulness and his respectability will be increased. [8]

The founders of dental education discharged to the best of their ability the first obligation that is implicit in the relation of such a program to a genuine university. They used the scientific knowledge at hand to determine what were the problems of oral diseases.

They also discharged to the best of their ability the second obligation implicit in this relation; they used the then best-known scientific approach to the solution of oral diseases. They built their instruction on the basic medical sciences. That they were not properly supported was not their fault. That dental education for upwards of a century failed to grasp the significance of their attempt has been its major

[7] *Ibid.*, p. 301.
[8] *Ibid.*, p. 303.

handicap. That it is now turning to an acceptance of the primary principles which they set up is to its credit and to their exoneration and justification. Honor should be paid to the founders of the first school of dentistry for their attempt to give dentistry a proper scientific foundation. From the writings of these men it is quite evident that they had a clear vision of what was needed to increase the effectiveness of dentistry as a public service. Harris, the first dean of the school, complained rather bitterly as late as 1850 that dental students showed almost complete disregard for the sciences and that it took the most stringent regulations to overcome the tendency to overemphasize what was then called "mechanical dentistry."

A scientific approach to the solution of oral diseases is as much needed today as it was a hundred years ago. On one hand is the whole field of the relation between systemic and oral conditions. Dentistry as practiced by many is still an impediment to the solution, a negation of the existence of the condition developing from this relationship. Here is an area whose future development is almost unpredictable. On the other hand is the problem of caries. The most recent report on this, a compilation by the Research Commission of the American Dental Association, gives indication of a typical predicament. The summary of the findings which appears in this report includes such statements as this: "The vast and intricate complexity of the causes underlying caries . . . remain to be discovered. In this respect caries is comparable with tuberculosis, the etiology of which, despite the knowledge of the tubercular bacteria, has not been fully elucidated." [9]

Goal of Dental Education

But let us look to the future; what should be the ultimate goal of dental education? Certainly it is not presumptuous to say that it should be to give the best possible scientific edu-

[9] *Dental Caries* (Chicago: American Dental Association, 1939), p. 174.

cation for persons preparing to render professional services to be applied primarily to oral health; to give so good an education that the quality of the work performed by those so prepared shall achieve a distinction comparable with that occupied by health specialists whose professional services are primarily for eyes; or for ear, nose, and throat; or for heart; or for lungs.

Can this be achieved? I firmly believe that it can. How? By making the scientific background of the dentist equal with that given these other health specialists.

We all know that most of the infections which afflict mankind take hold of the body after entering through either the mouth or the nasal passage. From there they go up or down or remain localized. Infections of the sinuses, of the respiratory tract, or of the digestive tract, as well as of the mouth itself are all interrelated to oral health. There is a close connection between these infections and the general health as well as the condition of the teeth.

In order, therefore, that the significance of infections and the interrelations between them and oral health may be understood, the prospective dentist should have as thorough a course in bacteriology as the prospective physician.

No horse trader of any standing omits a careful examination of the condition of the equine's teeth. He knows that when that animal cannot grind properly it must change its diet, and that its value either as a worker or as a racer is thereby greatly lessened. Yet many a dentist, finding a carious tooth or even one in which the patient claims he has a pain, pulls it with little or no thought of the effect on the diet and general health of that patient. Patients so treated frequently need to seek medical counsel later because of resulting digestive or nutritional deficiency. Such a dentist will have difficulty in carrying on an appropriate professional discussion with the physician concerning the patient's proper treatment.

Physiology concerns the functions of every organ of the body. One who has studied it properly knows what the nor-

mal individual is with respect to these functions. He will know also what the diagnostician is talking about when he describes conditions that are abnormal. The dentist should have as good a preparation in physiology as the physician so that he will understand the systemic functional disorders of the patient as these are relayed to him by the physician, and so that he can have an intelligent perspective of the relation of such complaints to oral health and of oral health to them.

If the general medical practitioner talks with the eye specialist and is told that his patient has proptosis, the physician knows that in most instances a treatment other than properly fitted glasses is indicated. He would not appreciate the significance of such a diagnosis unless he were in possession of as thorough a grounding in physiology as the eye specialist has. When the physician talks to the dentist about the patient's stomach ulcer, unless that dentist has had as much physiological background as the physician he will lack knowledge which he should possess in order to cooperate with the physician in helping to treat the ulcer in terms of the precautions to be taken directly in connection with the oral cavity.

Again, the public health director employs a dentist. What is to be this dentist's relation to the whole public health problem? Is he to go out merely as a plumber, or is he to know the relation of that part of the program dealing with oral health to the entire public health program? Certainly he should be able to direct prevention. The care of teeth is one of the most important parts of public health, but the work of the dentist should not stop there. He must know his patient as a whole as well as know the public health program as a unit. It would seem, therefore, that education in public health on a basis comparable to that given a regular physician should be given to the dentist.

There is another and a relatively new field in which the dentist needs training comparable to that given the physician. Not infrequently an individual will come to his dentist and complain that he has neuralgia of the face, but the dentist, upon examination, will discover no unsound tooth. Still the

patient does have an exhaustive pain. A proper examination into the entire case may disclose the cause of the pain to be a worry. It may originate in troubles between the man and wife, between parents and children, because of extended unemployment, or other worries. Such a patient cannot be cured by the application of dental techniques, but only by sound psychiatric procedure. The dentist should have as firm a grounding in the elements of psychiatry as the regular physician. If he has, he may be able to give proper treatment. He will also be better able to know when the case needs professional psychiatric help, and he himself will be sufficiently informed to be able to converse intelligently and to understand and cooperate with the physician in the treatment outlined by the latter.

Program for Dental Education

The profession of dentistry will never achieve the professional standing scientifically which it ought to have to carry on its work properly until those entering it are required to have as good a training in bacteriology, in physiology, in public health, and in psychiatry as those entering medicine. It would seem that the training which they are now receiving in the best medical schools in anatomy, chemistry, pathology, and pharmacology is adequate.

Is such a program feasible? Again I believe that the answer is unquestionably, "yes." I am aware of the objection which is raised to such a program because of the additional time that it will take. The chief argument which has been raised against this time extension has been that it reduces the number of years which are left the individual for practice. It shortens his earning period while lengthening the preliminary period of expense. By some groups this objection has apparently been sung more often and with more spirit than the national anthem.

This argument is based upon a fallacy that entirely invalidates the conclusion. Lengthening the period of training has *not* decreased the length of the period for earning. In 1850

the age of the person entering dental practice was twenty years. He then could normally look forward to 40.1 more years of life. In 1910, because of the increased preparation required, the beginning dentist was twenty-two years of age. He had 41 more years of life left. In 1929, he had to stay in school until he was twenty-five. He too had 41.2 years of expected life ahead of him. Without planning or foresight what has happened is that the period of training required for licensure has been kept well within the life expectancies for the respective periods. In other words, the person looking forward today to becoming a dentist has time to pursue a genuine university preparation preliminary to entering his chosen profession and still expect to practice as many years as his grandfather who entered the profession five years younger.

As long as dentistry remained artisan in nature, preparation for it, involving no major excursions into science, demanded a relatively short period. The greater the emphasis upon science, the more pre-emptory the claims for more time for study. The number of years necessary to be spent in training for admission into dentistry, medicine, law, or theology has been increasing for several decades. Today dental education in America is committed to a time requirement almost, if not quite, equal to that imposed by medical education.

I have said that the first relation of dental education to the university is for the latter to provide the best scientific preparation for a practitioner. The first element in such a preparation is grounding in the sciences. Another equally important fact is to include in this scientific training whatever is necessary to initiate a continuing professionally alert body of practitioners.

It remains no longer a matter of mere opinion as to the effects that different teaching methods have upon the thought, feeling, and action of those taught science. Conclusions given in a very recent report show

> . . . that students who have been stimulated to find the wide ramifications of scientific knowledge through their lives will be more

cognizant of these ramifications than students who have not been so stimulated; and students who have been allowed opportunity and encouraged to initiative and independent thought and action will use these to a greater extent than students who have not had such opportunities.[10]

While the conclusions stated in the report above are not considered as final by its author, the general thesis which they support has been amply verified by numerous other experiments. That thesis is that methods of teaching have direct bearing upon the attitude of the one taught, toward what he is taught—its significance, and the need in the future of his checking from time to time his fund of knowledge with the constantly modifying, continually refined body of scientific information.

To maintain through the years a scientific attitude of mind toward the problems of the profession and the constantly increasing knowledge available for their solution, is what the dental profession needs as it looks toward the future. This will necessitate not only mastery of the necessary sciences plus teaching methods directed specifically toward building up proper mental attitudes; it will demand also more and better research in dental schools by properly trained persons, more observance of the results of research by teachers in dental schools, and wider use of these results by practicing dentists. And again may I point out that either to do research or to use its results properly necessitates thorough training in the sciences.

Second Relation of Dental Education to the University Program

I pass now from the first part of the relation of dental education and the university program, to the second. Simply stated, it is that to carry out such a program as has been indicated is a part of the obligation of the university as a social institution. The university has a public obligation to

[10] Samuel Ralph Powers, "The Effects of Instruction in Science on Thought, Feeling, and Action," in the *Teachers College Record,* February 1940, p. 405 ff.

support a proper program of dental education just as it has an obligation to support medical or legal training.

Frank Kiernan, director of the New York Tuberculosis and Health Association, said recently at alumni day at Columbia University that "virtually 100 per cent of America's adult population was affected by some form of oral disease, and that thousands could be classified as 'dental cripples.' " [11] Dr. Houghton Holliday, associate dean of dental and oral surgery at Columbia University, declared "that the United States was following a 'penny wise, pound foolish' policy of dental care." He said, "For 100 years dentistry has made its way alone, and now, having been recognized as an indispensable part of health service, still has received practically no support such as that given to other branches of health service." [12]

The university by the character of its scope and purposes as carved by Gilman and Harper and as followed since, has as much of an obligation in the direction of contributing to oral health as to the health of lungs, heart, or to the eradication of cancer. For the university to say that dental education has not been scientifically respectable and therefore to refuse it admission into the university's program is to evade the main issue and to shirk the responsibility which implicitly rests upon the university. Even medical education has not always been able to maintain the degree of scientific responsibility which merits inclusion in the university family.

Our thesis of the university's responsibility implies four basic considerations. The first is an abiding working concept of dental service as a contribution to the program of public health; second, the acceptance of prevention as a major objective of the dental profession; third, the continuing acceptance by the individual in the profession as a working hypothesis the principle that he is a member not only of a learned profession, but also of the public service; and fourth, a fundamental change in the point of view as represented in

[11] *New York Times*, February 13, 1940, p. 26.
[12] *Ibid.*, p. 26.

the profession today toward *(a)* prevention as a public good, *(b)* what the individual practitioner owes his profession, and *(c)* what the profession owes the public.

The healing arts began as a service to mankind. It was thought of first as an individual service, then later slowly emerged the idea of group service—but it was always service. In the golden days of Athens and of Rome ministrations even in activities which we now designate as the learned professions were frequently done by slaves. The kind and quality of service rendered were the only things that mattered. Similar conditions have prevailed in other periods of history. But as always happens when large numbers of people accept a religion, or a political dogma, or a professional status handed down from one generation to another, "interest has gradually concentrated not on the truth or the error of the idea, but on the precise form of doctrine. For when the ideal lies in the past, defense of traditions, not the creation of new values, becomes the objective." [13]

But it is not tradition alone that has its ball chained to the ankle. In the implications of responsibility for social considerations for the public's health, for prevention as well as for remedy, another impedimentum is to be found in the limitations of the expert himself. In a brilliant paper [14] a current writer points out that the expert tends "to make his subject the measure of life, instead of making life the measure of his subject," thereby confusing wisdom with learning; that he has such an analytic comprehension of a special realm, that he lacks the power to see that value in the perspective of totality; that by reason of his inversion in routine he tends to lack flexibility of mind once he approaches the margins of his special theme; that he rarely understands the common man. "Because he practices a mystery, he tends to assume that, within his allotted field, men must accept without question

---

[13] Pierre Van Paassen, *Days of Our Years* (New York: Hillman-Curl, Inc., 1939), p. 36.

[14] Harold Laski, *The Limitations of the Expert* (London: Fabian Society, 1931), 14 pp.

the conclusions at which he has arrived"; he tends to sacrifice "the insight of common sense to the intensity of his experience."

As contrasted with this, let us give the expert himself a chance to speak. In a comprehensive report which was recently circulated, I find this statement:

> Whatever the administrative organization might be in any particular school, it would seem to be educationally and professionally unsound to entrust the responsibility for the development of students in medical fields to others than medically qualified teachers. The safeguarding of the medical point of view can be entrusted in the universities as they exist in this country only to those interested and competent in medical education. In view of these principles, sound programs for graduate medical education in universities can be developed only through the employment of the experience and technical knowledge of medical school faculty members and administrators. [15]

The first idea that comes after reading this statement is that if one accepts it there is no use in having medical schools connected with universities at all. In the historical light of the conditions many of these schools were in, as disclosed by the Flexner study, such a conclusion of course is wholly untenable.

The second idea, which is suggested by the quotation and confirmed by the report as a whole, is the overemphasis upon the expert. The wide aspects of medicine as a major social function have been strikingly neglected. Whether this is a result of mere oversight or one of overt omission, it is a dereliction of gravest import.

The ultimate values of health education, whether in medicine or in dentistry, are not to be found in the individuals served, but in the changes brought about by such service in making our social organizations so function as to provide all men with better opportunities to have life and liberty and to achieve happiness.

---

[15] *Medical Education in the United States, 1934-39* (Chicago: American Medical Association, 1940), p. 36.

Just as health education was never able to acquire the quality of training in the natural sciences which it needed until it received proper assistance by being included in the university's program, by the same token it will never give proper recognition to the more inclusive values implicit in the professions of medicine and dentistry until it gets the perspective which can be supplied only by the university through the latter's operation as an institution by and for all the people.

Because the expert was never before as specialized as he is today, his claims should be scrutinized most critically—indeed he should look with skeptical eye upon his own claims. "The material point that our experts multiply brings with it no system of values." [16]

My main point here is not that the university is the best source of such service. It is rather that it is the bounden obligation of the university to see that the professional programs of health education are balanced, are set up and administered for the sake of those to be served, for the society that needs those services. Aspects of economics, of sociology, as well as of psychiatry, have as legitimate a claim in this program as do the natural sciences, and it is the obligation of the university to see that this claim is recognized. Some of the research findings in these two social sciences are as important to dentistry and to medicine as is grounding in the natural sciences.

---

[16] *The Limitations of the Expert*, p. 13.

A Researcher Looks at Research

By A. C. ROSANDER

IT IS highly appropriate that now, at the end of another decade of educational research, when we pause to take stock of progress made, a committee of the American Council on Education should bring to our attention certain basic issues which have long been ignored.[1] The committee made a critical appraisal of educational research in order to discover, if possible, its underlying structure and to suggest ways of building and improving such a structure in the future. The report is unusual not only in the novelty of the approach, but in the sense that it is really five individual reports, one for each member of the committee. They have examined research in five different fields: reading, child development, measurement, personality and guidance, and school finance.

In view of the nature of the report it would be inaccurate to state that the "committee" arrived at certain conclusions and recommendations; it would be more accurate to say that certain major points and issues were raised by members of the committee. The chairman, Henry W. Holmes, concludes by stating: ". . . we have not discovered any highly developed conceptual structure in educational research. Our study constitutes . . . a challenge to educational research to state and organize its concepts—to develop a conceptual structure which will give to education a new and greatly needed instrument of progress."[2] As one of the other members put it, the need is to shape concepts which will lead to better research in the future. Mention was made in the several reports of concepts which presumably illustrate this new structure. The

[1] *Educational Research: Its Nature, Essential Conditions, and Controlling Concepts,* American Council on Education Studies, Series I, Vol. III, No. 10 (November 1939).

[2] *Ibid.,* p. 3.

whole child in the total situation, and situational research which grows out of this concept, were discussed specifically by two members. One member seemed to think that factor analysis was a good example of the type of concept needed in educational research.

The committee members have been more clear in pointing out what is wrong with present concepts than in giving the outlines of a better program for the future. The majority of the members seemed to think that educational research suffers from an atomistic psychology and from statistics and measurement which have become associated with it. Their position seems to be that a consideration of the dissected child in isolation should be replaced by a concern for the whole child in the total situation, that statistics assumes an independence of variables that does not exist, and that equal test scores do not represent psychological equivalence.

Their argument, however, is marred by several inconsistencies. Educational research, it is alleged, is not pure science; it is applied science and should be aimed at action. But the conceptual structure which the committee is interested in is much more a characteristic of a pure science than of an applied science. What, for example, is the conceptual structure of electrical engineering, aeronautical engineering, and industrial chemistry apart from the fundamental sciences on which each is based? Engineers in these broad fields not only are not interested in any logical structure; they probably do not understand the work of others in their own general field. A power house engineer, for example, may not understand an illumination engineer any better than someone outside the field. Moreover, this view of pure versus applied science is not consistent with a favorable attitude toward factor analysis, or with the view that educational research needs more theory. Certainly if anything was ever developed without regard to practical applications, and in terms of the most abstruse mathematical structures, it was factor analysis.

It is alleged that equal test scores do not represent psychological equivalence. It would be equally true to say that equal

heights do not represent physical equivalence, or that equal bodily temperatures do not represent equivalence of bodily functioning. Admission of these statements does not invalidate the concepts nor the instruments on which they are based. We do not discard the concept of height because persons of the same height may have very different weights, nor do we refuse to use the clinical thermometer because a temperature of 101 degrees may have arisen from many different causes. Of course we do not claim that test scores represent a scale of an attribute in the same sense that a rule or thermometer does, but we suspect that the foregoing allegation would be made even if we did have as precise a scale of mental ability.

It is asserted that variables representing human characteristics as designated in psychology and in education are not independent variables. This point should be pretty well settled by this time. One thing that correlation work of the last forty years has shown is the intercorrelation of most human mental characteristics. And recently by use of the method of factor analysis we have attempted, often with considerable difficulty, to find within this matrix of correlated variates, a pattern of a few independent and identifiable categories or factors.

The further point is made that the criteria of measurement as used in physical measurement are not met in mental measurement; and that tests are satisfactory for practical use but not for scientific research. The problem of measurement was studied by Thurstone about a decade ago, and some real contributions made in developing a rational unit of measurement and a procedure which had psychological sense. It seems quite inconsistent to assert that factor analysis is a fruitful concept in educational research when it is based upon the intercorrelations of tests which are considered satisfactory only for practical purposes.

What We Propose to Do

We propose in this paper to discuss four further questions relating to educational research, some of which will bear

directly on points raised by members of the committee. These questions are:

1. What is the role of inference in educational research?
2. Can a new psychology improve educational research?
3. Can a new type of statistics improve educational research?
4. What can we do now about improving educational research?

The Role of Inference

We may cast aside statistics and measurement, we may abandon what we think to be an atomistic psychology, but we cannot avoid inference. In more than one sense the problem of inference is the basic problem of research. Whether we call the results of research, findings, conclusions, generalizations, or hypotheses, they represent characteristics and relationships which we see in or draw from the data we know or have. In the great majority of cases these generalizations represent inferences by induction although it is equally possible to make inferences by deduction. In the main, however, research is based upon the situation in which we know a part, a particular, or a sample, and desire to make statements about the whole, the general, or the larger population.

Inference pervades all research whether it is essentially statistical, experimental, case study, field study, historical, or philosophical. It is just as necessary where one is dealing with an intensive study of one individual as with an extensive study of numerous individuals.

The basic problem in research is how to carry on an inquiry so as to increase the probability of arriving at true inferences, and to decrease the chances of arriving at false inferences.

There are several reasons why inference is of basic importance in research. In the first place, any action taken will be based upon inferences resulting from the study; so long as educational research or any other research does not result in, or is not associated with, action, then little harm is done

if researchers arrive at false inferences. On the other hand, just as soon as research must result in action, the question of inference becomes of paramount importance. If every educational research were subject to such a life and death pragmatic test as that which faced the *Literary Digest* in November, 1936, we can be sure that more attention would be paid to the question of inference. If one accepts at face value the inference that the "new type" school is better in certain definite respects than is the "traditional" school, then one's action will be quite different than if he had not accepted this inference. Similarly, if one accepts the inference that the IQ is not a constant but a variable influenced by environment, his actions are going to be different than if he believes the IQ is constant.

There is an expression common both to lay and to research people to the effect that "facts speak for themselves." This statement carries the tacit assumption that the inference or inferences are inherent in the data themselves, and that they are equally apparent to every reader. It has been shown, and it can easily be duplicated, that a great variety of inferences will be drawn from the same data by a group of individuals; and this holds true whether the data are quantitative or nonquantitative. Those who use statistical tables and graphs for the purpose of exposition know that they can never make their work fool-proof; all they can hope to do is to make clear what the data are, and so arrange them that legitimate comparisons and inferences are facilitated. As a matter of fact the drawing of inferences from data is often difficult and confusing, depending on the nature of the data and one's acquaintance with them.

The question of inference is important because educational research is subject to psychological cults on the one hand and to educational authoritarianism on the other. During the past quarter century several schools of psychology have arisen, each claiming to be a better psychology than its neighbor. Education has been, and continues to be, the battleground of some of these psychologies. Research has been

carried on to prove scientifically that each one of these theories is better than the others. This has led to a good deal of psychological propaganda parading as science. Objective science has been distorted in the enthusiasm to prove that one's own creed is the best. Moreover, educational institutions themselves tend to have certain fields in which educational research is concentrated, and each one has a tendency to defend and to promote, often quite vociferously, what it is doing.

That inference has definite implications for the planning and the executing of a research study is illustrated by its relation to sampling. The reason why we desire to avoid bias in sampling is simply to avoid biased estimates on the one hand and fallacious inferences on the other. Researchers proclaim, but do not prove, that they have obtained a representative sample. When one considers that the reason for claiming representativeness is to allow the researcher to apply his inferences to the larger population from which the sample was drawn, one is impressed by the weakness of, if not the total lack of, plausible evidence to support the assertion.

Another practice is that of defining the population after the sample has been taken. This represents another attempt to extend the area of applicability of inferences, often by proclamation, and sometimes by means of evidence that will not stand close inspection. The fact that the practice seems common does not make it any less fallacious. Examples can be found in some of the recent youth surveys. In the Harvard growth study 1,300 youth are claimed to be representative of ten million urban youth; the WPA study of 30,000 urban youth, a study of considerable merit, is likewise considered to speak for these same ten million youth; while the 13,500 youth in the Maryland study are supposed to stand for the twenty million youth in the nation. Moreover, these three studies involve three different definitions of "youth."

Another common practice is an erroneous application of the probable error formula in estimating the standard error of a mean. If the sample selected at random were nine

schools or classes, and not the 900 students within these schools or classes, then the value of n (number of cases) in the formula is 9, not 900. If the latter value is used it is obvious that the standard error will be underestimated, and that significant tests will be inferred which do not exist. Furthermore, for samples sizes less than 30, the appropriate test is Students' t test, not the customary probable error formula.

Another practice not directly related to sampling is that of drawing inferences from averages, such as medians or arithmetic means. If our attention is focused on the statistics and not upon the hypothesis to be tested, then we are likely to make inferences willy-nilly from the averages. There is not only the possibility that the mean is not a good measure of central tendency, there may not be any central tendency at all; moreover the variability may be even more important than the central tendency. Many studies ignore highly significant information which can be inferred from the variability of the measures.

We have pointed out the importance of inference in relation to action, psychological and educational schools of thought, and certain practices in the interpretation of quantitative data. This evidence indicates that the problem of inference is not only so basic that it cannot be ignored, but that some method ought to be developed whereby inferences would be accepted or rejected, always subject to later revision, not on the basis of authoritarianism but on the basis of objective or semiobjective tests of significance. We will return to this point later.

Educational Research and the New Psychology

One gets the impression that some of the committee members believe that if we could only get educational workers thinking in terms of the new concepts of "the whole child in the total situation," "personality development," "organismic psychology," "progressive education," "interaction," "continuity," "topological psychology," that a renaissance in educational research would take place more or less automati-

cally. At least, none of the committee members indicates just *how* these concepts are going to improve educational research, although there is some comment on the possible limitations of the concept "the whole child."

The real question is: Will a new psychology decrease the amount of uncertain inference? And the answer seems to be that there is no necessary relation between the newness of the psychology and the validity of the inferences. Watson's inference that there were three innate emotions—fear, rage, and love—is a case in point. This inference has been widely held, although careful repeated experimentation by Mandel Sherman and others raises serious doubts concerning its validity. This seems to illustrate two points. One is that in the enthusiasm and prejudice arising from association with a particular school of psychology, workers will become careless and infer more from their data than they should. The second point is that this inference was rejected later, not so much because of a new psychology, but because of careful repetitions and elaborations of the type of experimentation which Watson himself did.

This brings us to our main point. Merely changing concepts will not necessarily bring about a reformation in educational research. This "adequate" psychology will not eliminate, and it may not even reduce, inadequate research. Enthusiasts may jump on the band wagon of the new movement once it gets under way, and with neither technical understanding nor scientific discipline carry on all kinds of "research" on the "whole" child in the "total" situation, "research" which will be as superficial and as useless as that which the committee members now condemn.

Consider more in detail a research study based on the "whole" child in a "total" situation. Consider further the hypothesis that in situation A the children are more cooperative than they are in situation B. From an operational point of view this hypothesis involves at least the following:

1. Specifications relative to what constitutes "situation A"

and "situation B," and how the one can be differentiated from the other.

2. Specifications relative to what a child does when he is "cooperative," and what he does when he is not cooperative.

3. Variations in the judgments of individual observers who are observing these children in these two situations.

4. Variations in the judgments of a single observer from hour to hour, day to day, and week to week.

5. Variations among the children themselves within the same situation.

6. Comparing the frequency and duration of cooperation of a group of children in one situation with the frequency and duration of cooperation of another group of children in a similar situation, providing "situation" and "cooperation" can be defined objectively.

7. Comparing the frequency and duration of cooperation of a group of children in one situation with the frequency and duration of cooperation of the same children in another situation, taking into consideration the variable of learning.

8. Testing the hypotheses that the frequencies and durations in (6) are the same; likewise for situation (7).

9. In general determining the probability that the alternative hypothesis that the children are not more cooperative, is true.

In other words, in testing a hypothesis under this new psychology, technical problems are not only not avoided, but they become more complex. This "new" research is in no better position relative to methodology than was the old. There is still the problem of formulating operational definitions. There is still the problem of sampling to face. There is still the problem of biased and unbiased errors to solve. There is still the problem of the area of applicability of the inferences drawn from the data. There is still the necessity of discovering what the probability is that some alternative hypothesis is true.

As with other research this newer psychology will have to face the fact that its generalizations are based upon samples

of behavior of the same child, or samples of behavior of different children; that the validity of inferences drawn will depend in large measure upon the observability and stability of these behaviors; that inference will be much harder to validate without a great deal of replicated experimentation because of this variability and because of the complexity of the factors involved; that many, if not most of these inferences will have a statistical basis that cannot be ignored; that shifting from measurement to taking frequency counts in different situations does not evade statistical theory in general nor statistical inference in particular. Refusal to meet these issues will mean that the acceptance or rejection of hypotheses will be subject, not to objective statistical tests of significance, but to the authoritarianism which a particular person working in a particular institution can muster.

To sum up, there is no necessary relation between the newness or adequacy of a psychology and the validity of inference. Inference in educational research is not only conditioned by the psychological theory we hold, but by the methodology employed in the inquiry. The power of experimentation lies in its ability to reduce uncertain inference; but this does not mean that anyone versed in a particular psychological theory is *ipso facto* competent to carry out such experimentation. Inference may be affected by the type of psychology we hold, but it may be the inference of a partisan rather than that of a scientist. What is needed in this direction is more cultivation of the scientific attitude. Inference is also related to technique and methodology. The need in this direction is better and more thorough technical training in scientific methods, logic of inquiry, statistical theory. Publication of critical but fair appraisals of educational research would also be a big help, but no one apparently wants to risk his professional future in order to undertake this difficult and thankless job. Finally to paraphrase Tennyson: Psychologies may come and psychologies may go, but inference goes on forever.

EDUCATIONAL RESEARCH AND A NEW TYPE OF STATISTICS

There is some indication that the committee members have the impression, as many still do, that statistical theory in 1940 is the same as it was in 1920. Nothing could be further from the truth. Such rapid strides have been made in both statistical theory and statistical practice that the methods of Francis Galton and Karl Pearson are no longer enough. The new developments relative to statistical hypotheses, tests of significance, statistical inference, and experimental design give statistical methods a new flexibility and a greater effectiveness in dealing with actual problems. This newer methodology has not yet permeated research work in education or psychology although the contributions of R. A. Fisher, Jerzy Neyman, and Egon Pearson have been known for some time. Properly understood and applied, these methods may enable us to attack many problems which heretofore have evaded us and to check with more precision the research findings of the past four decades. No consideration of educational research is complete without a discussion of the implications of these new developments.

We do not mean to imply that the new statistics is a panacea; it is no more a panacea than is the new psychology. To be effective these principles of statistical research design must be understood and used with care and caution—research abilities which can hardly be acquired in one or two of the usual courses in statistics. As a matter of fact just as there is a revolt against the older psychology so there is a revolt against the older statistics. *The merit of the newer statistics, however, lies in the fact that it aims specifically to reduce uncertain inference.* Even though these new aspects of statistics are undergoing a rapid development at the present time, quite a substantial body of principles and practices has already been established.

Let us draw in rather bold lines the differences between the older and the newer statistics. The older view was that statistics was a set of tools to be used after all the data were

in; the newer view is that *they are a set of principles which constitute specifications to be met in planning and in executing the research project.* The stress of the older statistics was on computation; the emphasis of the new is on interpretation and inference. Under the old regime collection of data was not an integral part of statistics; under the new scheme collection is integrated with interpretation. Under the older notion of research, statistics was itself a method of research; under the newer approach, statistical principles become applicable whenever we make inferences from quantitative data. This means that statistical theory is as applicable to experimentation as it is to field surveys. Furthermore the lines between economic statistics, sociological statistics, educational statistics, and psychological statistics are being broken down. This is because we are beginning to see that what counts are the basic principles of statistical theory, not statistics courses for tradesmen. Fisher's work on experimental design and analysis of variance has found applications in such widely different fields as agricultural field experiments, biological assays, marketing surveys, quality control of manufactured products, and psychological experiments. As a matter of fact, Fisher's classical example of experimental design is drawn from the field of psychology.

This raises the interesting question: Is all inductive inference essentially statistical in character? Without attempting to answer this question categorically one may make a few relevant remarks. The statistical nature of inference in the physical sciences has been obscured by the fact that in these sciences one often, but not always, deals with homogeneous material in which an analysis of one case is sufficient to establish a principle. Even so, modern physics has raised problems which appear to be essentially statistical in nature. In the social sciences the lack of homogeneity of a variate among a population makes inference a problem closely related to statistical theory. In research involving quantitative values, whether these be measurements or frequency counts of qualitative characteristics, the usual problem is that of inferring

from the sample to the universe from which the sample was drawn. The problem is not changed essentially if the sample is a specific behavior of an individual in a situation. In the latter case we try to infer from samples of behavior what his behavior is in general, or what his predominant mode of behavior is, or what his behavior is likely to be in other similar situations.

At the present time we do not have statistical methods applicable to all the various types of problems which may arise. The tendency in statistics has been to keep relatively small the number of basic distributions needed in order to make tests of hypotheses; this tends to keep the basic principles simple and unified. This unification was once the normal curve, but it has now been expanded to more general forms of which the normal probability curve is but a special case. We may look for a continuation of this tendency which will increase the variety of problems which can be handled uniquely. We may also look to a more thorough consideration of the statistics of individual growth, and to the development of more powerful techniques for testing hypotheses in this field.

It seems to the writer that two general procedures are open to us. One is to collect varieties of data about a problem, question, or hypothesis, and then try to discover available statistical methods which can be applied to them. Under this procedure it often happens that certain desirable statistical methods are *not* applicable because the data do not meet the basic assumptions of these methods. In spite of this statistical methods are often applied, and inferences drawn which are very likely to be fallacious.

The alternative method is that of designing the entire research study in terms of the restrictions implied or stated in the tests of significance which are going to be used to test the hypotheses. This can often be done without losing the reality of the problem being attacked. As a matter of fact, more relevant information can be obtained in this way than is secured in the usual study carried on in what is alleged to be

a more "natural" and "common-sense" manner. We have no other course: If we desire to use the full power of statistical methods in research, the research must be designed in terms of the limiting conditions inherent in the statistical theory which we are employing.

Moreover, we rush into experiments involving characteristics of individuals which are difficult to measure and slow to change. We set up control groups and experimental groups without regard to the principles of research design. We set up experiments in which conditions are not controlled or measured, in which uncontrolled factors are not randomized, and without sufficient time in which to show any worth-while results. Unless we can avoid this, unless we can put an experiment on such a basis that it will allow the testing of basic hypotheses with some degree of confidence, then we should avoid experimentation. It appears that we are undertaking large scale, complex experiments when we do not yet know how to carry through a simple one successfully.

We should like to outline a "frame of reference" for research when it is conceived of as an integrated sequence of designed operations planned for the purpose of testing hypotheses. Research which aims at the testing of hypotheses which involve statistical theory can be systematized into what may be called a *research design.* The major problem is one of harmonizing purpose, principle, and practice—the three "P's"—into an efficiently operating unit. Purpose will be reduced to specific hypotheses to test. The logical consequences of statistical principles become specifications to be met if the hypotheses are to be subject to an objective test. The whole will be subject to practical administrative problems and difficulties, involving finance, personnel, and the like.

The sequence of operations constitutes a *research cycle.* This means that there is a beginning and an end; we start out with a set of objectives and we finally take stock of how close we came to reaching them. Furthermore, the modified or new hypotheses of one research cycle become the starting points of another cycle.

The research cycle consists of four phases: planning, collecting, combining, and implementing. In the planning phase we draw up a plan or blueprint for the study integrating purpose, principle, and practice into an efficiently working unit. This involves the reduction of objectives to hypotheses, the designing of sampling, the planning of field tests, the construction of check lists and schedules—in fact, it involves all the major and minor problems of the study from the objectives to the final reports and the methods of implementation.

The collecting phase involves taking samples, making observations, recording measurements, studying sampling and nonsampling errors. The combining phase represents the synthesis of the data—the testing of hypotheses, the making of generalizations. It calls too for an appraisal of the basic methodology and of the original objectives. The implementing phase is one of putting the statistical inferences and generalizations into practice. This phase may not involve the whole technical staff, since it will require new approaches and often new personnel. It is essentially a problem in salesmanship, not one in science, but it will be up to the scientists to see that the salesmen keep their feet on the ground.

The writer's experience and observation lead him to recommend the use of a *preliminary survey*. Research studies, as we have suggested, often end where they should begin. This is because the objectives are not sufficiently clarified until the study is about over. A preliminary survey not only serves to crystallize purposes and to formulate hypotheses but it also provides us the means to test the schedule or questionnaire, to estimate desired statistics, and to investigate sampling problems. All research, whether large or small, could be improved in efficiency by the use of the preliminary survey, which for large researches might require at least a year. As a matter of fact much of that which passes as research is in reality a preliminary inquiry which should be the prelude to real research.

Another feature of research design is the *field test*. This means that sampling and nonsampling variations will be tested

as the sampling is in progress. Hypotheses cannot be correctly tested nor adequately interpreted unless we know the sampling and nonsampling variations of the various measurements or enumerations; and the time to investigate these is while the study is in progress, not after it is finished.

Another important part of research design is the final appraisal of the cycle. Learning from experience is supposed to be the mark of a civilized people. Yet looking at research studies one sometimes thinks that we are deliberately trying to prevent learning from experience. Results of studies are published, but not the significant experience. Unless research studies contain descriptions of methods employed, difficulties encountered, solutions used and discarded, biases discovered and reduced, and the raw data themelves—it is hard to see how future workers are going to profit from present experience.

The purpose of all this careful planning and designing is, to repeat what we said earlier, to increase the probability of arriving at true inferences and to decrease the chances of arriving at false inferences.

What Can Be Done Now?

There is obviously a need to continue this discussion of the relation of psychology, statistics, logic, and methodology generally relative to educational research. This can be done at meetings of research organizations; it may be done at special institutes formed for this particular purpose. This discussion should be carried forward in terms of a critical appraisal of various types of research studies in education and related fields. An important aspect of such a discussion would be the concept of research design, and in general the problem of integrating psychological concepts, logic of science, statistical theory, and techniques of field and experimental research.

What would be of great help in drawing attention to better research would be a few very good research studies, well-planned and carefully executed, combining an important prob-

lem with technical skill and research design in which the entire process and not just the end results were published. Research demonstrations of this kind are needed for the specific purpose of showing how statistical research design is planned and executed.

The problem of training competent social science researchers for both private and public service has not yet been faced. A vicious circle is formed if civil service commissions adjust their requirements to graduate school curricula, and then the graduate schools continue these curricula because their graduates have obtained positions in the public service. The time has come to differentiate research workers and directors from those not trained for this particular type of work. This will require a sharper definition of research than we now have, and a much more concrete idea of what constitutes research work and what does not and what particular set of qualifications distinguish the researcher from the nonresearcher. It also raises the basic issue as to whether research work is to be a career, or a set of "extracurricular" activities.

If educational research is going to progress along lines suggested herein then there is need for a drastic revision of graduate work in our universities relative to research. Not only do we need graduate courses dealing with statistical theory, logic of inquiry, and scientific methodology for all social science research workers, but we need one or more courses in which these principles are integrated with research realities.

The idea of cooperative studies among different institutions and among graduate students in the same institution has many possibilities. If these inquiries are carefully designed, they ought not only to reduce uncertain inference but increase the area of applicability of such inferences.

The New Copyright Bill, Senate 3043

By WALDO G. LELAND

FOR MORE than a generation the present copyright legislation of the United States, based upon the Act of 1909, has become increasingly unsatisfactory and even discreditable to the United States. It is so out of harmony with similar legislation of the principal countries of the world, signatories of the Berne Convention and members of the International Copyright Union, that the United States is unable to become a member of that Union upon anything like an equal footing with other countries.

The disadvantages of this situation are numerous and obvious. In the first place, it deprives American authors of any easy and simple way of securing protection for their works in other countries. As a result they are pirated and widely distributed in cheap editions without any return being made to their authors or to their American publishers. An awkward, roundabout, and rather humiliating device of attempting to secure international copyright protection through the simultaneous publication of American books in Canada, thus endeavoring to secure the advantages of membership in the International Copyright Union through the back door of the British Commonwealth of Nations, has broken down, as it deserved to do, in various court decisions, the most famous of which is that of Dutch courts in the recent case of *Gone With the Wind*. A recent communication from the Dutch Publishers' Association states that about ninety per cent of the translations from American books that are published in Holland are published without making any payments to the American authors or publishers.

An important American publishing house has spent large sums of money to build up a business in the Far East, only to find that, through lack of copyright protection, translations,

cheaply made and manufactured in Japan, or actual copies, reproduced by photolithography, were distributed so widely and at such low cost that the investment turned out to be nearly a total loss. In South America, the publishers of cheap editions in Chile have been able to pirate American works on a large scale.

Another major difficulty due to our present legislation is caused by the necessity of complying with such formalities as publication with notice, registration, payment of fees, and the deposit of copies. These formalities must be complied with within a limited time, and if not complied with exactly as prescribed in the law, copyright is lost. This occurs very often through ignorance or failure of agents over whom authors have no control, and not through the fault or negligence of the authors themselves.

These same formalities make it difficult for foreign authors to secure copyright in the United States, and their works are often pirated in this country in a manner that is, to say the least, most discreditable and a reflection upon the honesty of the United States. Furthermore, because of the so-called manufacturing clause, which will be discussed later, books in English of foreign publication cannot secure permanent copyright protection in the United States unless they are remanufactured in this country.

During the thirty-one years of the lifetime of the present act, new methods of manufacture, publication, and distribution and new processes of copying have come into use, and a vast number of new uses of copyrighted material, notably by means of radio, television, the cinema, and sound recording have developed to a point of great commercial importance. In spite of the increasing disadvantages of our present legislation, all efforts to improve it have failed because it has not been possible to bring about the necessary agreement among the interests most concerned.

In 1938, the National Committee of the United States of America on International Intellectual Cooperation, of which James T. Shotwell is chairman, appointed a subcommittee for

the Study of Copyright, in the hope that this committee might be able to draft legislation that would make it possible for the United States to adhere to the Berne Convention and to other international agreements respecting copyright protection and that would be adapted to the changed situation with respect to the production of copyrightable material and the numerous uses of copyright. This subcommittee consists of James T. Shotwell and H. W. Jervey of the Law School of Columbia University, with the writer of this article as chairman. The committee was able to secure a grant from the Rockefeller Foundation to enable it to meet the expenses of its study, and was also able to engage the services of Edith E. Ware as executive secretary.

The committee first made a rapid survey of the efforts during the last thirty years to amend our copyright legislation, and it was found that these had failed chiefly because the interests most concerned had been unable to reach agreements among themselves. The Committee for the Study of Copyright decided, therefore, that it must, first of all, enter into a series of consultations with these interests in order to learn how far it might be possible to harmonize their views and to smooth out the conflicts between them. It accordingly invited their representatives to sit with it in a series of round-table conferences, which commenced in the spring of 1938 and continued until the end of 1939. The following groups were regularly represented in these conferences: the Authors' League of America; the American Society of Composers, Authors, and Publishers; the Song Writers' Protective Association; the International Allied Printing Trades Association; the Book Publishers' Association; the National Publishers' Association; the American Library Association; the American Council of Learned Societies and the Social Science Research Council through their Joint Committee on Materials for Research; motion picture producers and distributors; motion picture theater owners; the Independent Exhibitors' League; the National Association of Broadcasters; the Music Publishers' Protective Association; and the recording companies.

Thus there were represented authors and creators, publishers, labor, broadcasters, the cinema, the recorders, librarians, and scholars. Never before had so broadly representative a group been brought together for continuous discussion of copyright problems.

The conferences were fully reported, but the reports were held in strict confidence, and no publicity was allowed to be given to the proceedings. Thus in an atmosphere of freedom and increasing mutual respect and confidence it was possible to modify opinions already expressed, to make and withdraw demands, to offer concessions, and in general to reduce to a minimum conflicting views and interests.

In the end, the bill was drafted by the Committee for the Study of Copyright in close consultation with legal experts. The committee does not conceive that it has produced a perfect work; it believes, however, that its proposals for the most part are well adapted to present needs, and that they will encounter much less opposition than the proposals in any previous copyright bill.

The bill, introduced into the Senate by Elbert D. Thomas of Utah and referred to the Committee on Patents, may be found in the *Congressional Record* of January 8; it was also printed as Senate Bill 3043. Its principal provisions may be briefly summarized as follows:

In the first place, copyright protection is based upon the creation of a literary or artistic work, and is secured without observing any formalities. This is fundamental; it is a first principle of copyright protection in the chief countries of the world, and is essential to participation in the International Copyright Union.

In the second place, the exclusive rights of the author apply to all conceivable uses of his work, and he may dispose of his various rights (adaptation, translation, performance, etc., etc.) separately; that is, the divisibility of copyright is recognized in the proposed law in order that legislation may conform to actual practice.

In the third place, the moral right of the author as granted

under common law, to prevent deformation or mutilation of his works deemed prejudicial to his reputation, is specifically recognized, but without limiting the author's freedom of contract with respect to adaptations or other uses of his work.

Finally, the duration of copyright is extended to cover the author's lifetime and fifty years, in accordance with almost universal practice outside the United States.

These are the provisions most directly affecting the author; those that apply rather to the use of copyrighted material are as follows:

The provision for recording, in the Copyright Office, all grants of right to use; this procedure, which may be compared to the recording of land titles in a registry of deeds, should be of much value to purchasers of rights, since it makes it possible for them to ascertain, with far less trouble than at present, the ownership of the rights they wish to secure when such ownership no longer vests in the author. Although such "recordation" is not compulsory, it is believed that it will be so advantageous to users that they will take advantage of it. Furthermore, the Copyright Office is required to publish monthly and annually catalogues of all recorded grants of rights.

Grantees of rights to use copyrighted works have copyright with respect to the particular right granted (printing, adaptation, translation, performance, etc.) and are protected against infringement of that right, and may sue infringers without being obliged to join the author as a party plaintiff. They are also protected against the importation of copies infringing the rights that they have secured.

The principle of statutory damages as a deterrent to infringement has been retained in the new bill, but the minimum has been lowered, especially in the case of multiple infringement.

Inasmuch as the Committee for the Study of Copyright had always as its principal objective the serving of the public interest, several provisions have been included in the bill which are particularly for the benefit of the general public.

Among these are permission for the performance of musical compositions for charitable purposes; for the incidental and unavoidable infringement of a copyrighted work in the depiction or representation of current news events, excluding, however, any such use for advertising purposes; for the representation by photographic processes, by television, etc., of paintings, illustrations, or works of architecture, as well as the representation by photographic processes or television of scenes or works of art visible from a public place; for translation for purposes of private study or research; for the making of single copies of an unpublished work possessed by a library, provided that such copies are made and used for study or research only and are not for sale or hire; and finally, for the making by a library, under specified conditions, of one copy of a published but out-of-print work for research purposes.

In another important way it is believed that the bill serves the public better than existing law, and this is through placing the requirement of deposit in the Copyright Office (that is in the Library of Congress) upon a different basis. Under existing law such deposit is a formality which must be fulfilled in order to secure copyright.[1] Since all formalities as a condition of copyright are eliminated in the proposed act, deposit is now required of the publisher in connection with proof of American manufacture. Failure to deposit two copies, within the specified time, carries loss of right to statutory damages in the case of infringement, and causes the publisher to incur a fine of $100, but does not impair the copyright. The requirement of deposit may, however, be avoided by a written dedication to the public of the work in question.

Finally, there must be considered the liberalization of the so-called manufacturing clause. This clause has been justly characterized by Thorvald Solberg, former register of copy-

[1] A recent court decision seems greatly to weaken the practical effect of this requirement as a means of adding to the holdings of the Library of Congress, in that it upheld the copyright of a certain work although its publishers failed to make the required deposit until the moment of bringing suit for infringement.

right, as "a major blot on our copyright legislation." It has been a part of such legislation since 1891, but since 1909 has chiefly affected books and periodicals in English, manufactured abroad. Such cannot secure copyright in the United States unless, within six months of their foreign publication, they are remanufactured and republished in the United States. The purpose of this clause has been to protect American labor against loss of employment that it is thought would result if foreign-made English language books and periodicals could circulate in the United States with enjoyment of copyright protection. The amount of protection to American labor that is actually afforded by this clause is questionable; indeed, as the United States becomes more and more a producer of books and periodicals for the world market, such protection seems to be of diminishing relative value. There is even danger that imitation of this clause in the copyright legislation of other countries may more than offset the advantage, if any, that American labor enjoys because of it.

But thus far, in spite of repeated efforts to eliminate the manufacturing clause, as a necessary preliminary to adherence to the Berne Convention, or to other international agreements for international copyright protection, the clause has been maintained.

What is now proposed by the Committee for the Study of Copyright represents a compromise in the direction of liberalization. Although the clause commences by providing that "all copies of any copyrighted work which shall be distributed in the United States in book, pamphlet, map, or sheet form, including any copyrighted illustrations therein" shall be manufactured wholly within the United States or its dependencies, the section proceeds at once to indicate important exceptions to this provision. These exceptions are as follows: foreign newspapers, periodicals, or magazines; works in foreign languages by authors not resident or domiciled within the United States at the time of the creation of the work; works in raised characters for the use of the blind; illustrations of a scientific work or reproductions of a work of art where the subjects

represented are located in a foreign country; authorized translations in a foreign language of works previously published in the United States; twelve copies of an unprinted work in manuscript, typescript, mimeograph, or photostat; and motion pictures with or without sound.

In addition to these important exceptions, the section further permits the importation of works in English as follows: copies imported in personal baggage, not for sale or hire, not more than one copy of each such work in the baggage of any one person; importation through ports of entry or through the mails of one copy of any work on any one invoice for personal use of the consignee and not for sale or hire; two copies imported for the author's own use; copies imported for libraries; and copies of works forming parts of private collections, purchased *en bloc* in a foreign country, not for sale or hire.

To these permitted importations, which may in the aggregate be considerable, is to be added the importation in commerce of five hundred copies for distribution through the usual trade channels. This importation, however, is not allowed in the case of books by citizens of the United States or domiciled foreigners whose works, even in languages other than English, must be manufactured by American labor.

It is the belief of the Committee for the Study of Copyright that the allowed importations are sufficient to meet the demands of libraries and scholars and to test out the likelihood of a profitable reprint edition manufactured in the United States.

It should be noted that the foreign works affected by the manufacturing clause of the bill receive copyright automatically in the United States, without formalities. It is only in the event that the commercial importation of such works exceeds five hundred copies (in addition to the permitted individual and library importations) that such copyright is affected. If the commercial importation of more than five hundred copies takes place, *with the written consent* of the author or his authorized representative, it implies a voluntary dedication to the public of the work in question. Naturally, there-

fore, the author loses, or foregoes, recourse to the penalties provided in the bill, that is, to statutory penalties for infringement. If, however, such excess importation takes place *without the written consent* of the author or his authorized representative, the copies so imported in excess of five hundred are to be seized and forfeited, or, if such importation does not involve gross negligence or fraud, they may be returned to the country of export and the copyright is not impaired.

It should further be noted that the loss of copyright protection resulting from the importation, *with the written consent* of the author, of more than five hundred copies of his work applies only to the printing, distribution, and sale of that work. His rights in other uses of the work (radio, cinema, drama, translation, etc.) are not impaired, for the bill recognizes, as the present legislation does not, divisibility of copyright.

It is the belief of the Committee for the Study of Copyright that the legislation which it has proposed will not only benefit authors, users, and the general public, but will make it possible for the United States to take part on an equal footing with other countries in agreements respecting international copyright protection, and to enjoy the great advantages that would result from such participation.

The Council at Work

THE Council at Work is a brief summary of the outstanding new projects in which the Council is interested, as well as a progress report on undertakings already launched. It is hoped that this survey will give to the members of the Council and those interested in its work a more intimate view of the Council's development. Individuals desiring further information regarding subjects mentioned in this section are invited to write to the offices of the American Council on Education, 744 Jackson Place, Washington, D. C.

Twenty-third Annual Meeting

The list of speakers has been announced for the twenty-third annual meeting of the American Council on Education which will be held on Friday and Saturday, May 3 and 4, 1940, in Washington, D. C., at the Wardman Park Hotel.

The first two sessions will be devoted to aspects of the Council's educational program. Mark A. May, director of the Institute of Human Relations, Yale University, and chairman of the Council for 1939-40, will preside at the meeting on the morning of May 3 when President George F. Zook delivers his annual report. Following Dr. Zook's address, the group will divide into four sections where more detailed information will be presented regarding four of the projects of the Council: the American Youth Commission, the Commission on Teacher Education, the Cooperative Study in General Education, and the Educational Motion Picture Project.

William F. Russell, dean of Teachers College, Columbia University, and a member of the American Youth Commission, will lead a symposium and panel discussion on Friday

afternoon. The four project directors who report in conference sessions in the morning—Floyd W. Reeves, Karl W. Bigelow, Ralph W. Tyler, and Charles F. Hoban, Jr.—will discuss "The Education and Adjustment of American Youth." The audience will be invited to participate in the discussion.

At the annual dinner on Friday night, Dr. May will deliver the chairman's address, "The Education of a *d*emocrat." Isaiah Bowman, president of Johns Hopkins University, will speak on "Who Is Responsible for Peace?" As a geographer President Bowman played an important part in the European situation following the first World War. Ernest O. Melby, dean of the School of Education, Northwestern University, and secretary of the Council, will act as toastmaster.

Three speakers are scheduled for Saturday morning, May 4. The Reverend Robert I. Gannon, S.J., president of Fordham University, will talk on "General Education and the Jesuit Conception of Education." A. W. Merrill, superintendent of schools in Des Moines, Iowa, will discuss "How Can the College and the School Cooperate in Educating Teachers?" Ben D. Wood, director of the Council's Cooperative Test Service, which was established in 1930, will review "Ten Years of the Cooperative Test Service." There will be discussion, followed by the business meeting and election of officers.

The traditional buffet luncheon will be held on Saturday noon at the Wardman Park Hotel, the wives of members of the Council staff acting as hostesses.

On Saturday afternoon, Walter C. Weidler, dean of the School of Commerce and Administration, Ohio State University, and first vice chairman of the Council, will preside. Constance Warren, president of Sarah Lawrence College, will discuss "The Responsibility of the College to Its Students." Henry I. Harriman, member of the American Youth Commission, who was formerly president of the United States Chamber of Commerce, will close the meeting with an address, "A Layman Looks at Education."

The Council will maintain a display of publications and other materials related to its activities throughout the sessions.

Membership

The Executive Committee of the Council met at the Princeton Inn, Princeton, New Jersey, on February 11, 1940, following the two-day meeting of the Committee on Problems and Plans in Education. The Executive Committee at that time admitted the following new members:

Constituent:

American Association of Physics Teachers
American Vocational Association, Inc.
Catholic Hospital Association
Educational Records Bureau

Associate:

The Open Road

Institutional:

Alabama Polytechnic Institute, Auburn, Alabama
Alliance College, Cambridge Springs, Pennsylvania
Elizabeth Public Schools, Elizabeth, New Jersey
James Millikin University, Decatur, Illinois
Kalamazoo College, Kalamazoo, Michigan
Kent State University, Kent, Ohio
Lane College, Jackson, Tennessee
Loyola University, New Orleans, Louisiana
New Haven Public Schools, New Haven, Connecticut
New Mexico Military Institute, Roswell, New Mexico
St. Bonaventure College and Seminary, St. Bonaventure, New York
Southern University, Scotlandville, Louisiana
University of Dubuque, Dubuque, Iowa
University of Richmond, Richmond, Virginia
Weber College, Ogden, Utah
Westminster College, New Wilmington, Pennsylvania

It was also voted to open institutional membership to school systems of suburban communities, towns, counties, and smaller cities in such proportion of the total institutional membership as the Executive Committee may determine.

New Grants

The following new grants have been received by the Council, since the January issue of The Educational Record:

GENERAL EDUCATION BOARD:

$5,500 for the United States Office of Education to enable Rufus W. Stimson to complete an historical study of vocational education of less than college grade in agriculture.

$6,400 for the Cooperative Study in General Education to be used in providing working fellowships to faculty members in cooperating institutions and in conducting a demonstration class for college freshmen in connection with the 1940 summer workshop.

$1,000 toward the completion of the Survey of Educational Evaluation under the auspices of a subcommittee of the Committee on Measurement and Guidance.

CARNEGIE CORPORATION:

$1,500 to Robert Herndon Fife, chairman, Committee on Modern Languages, to make an exploratory study of the teaching of English in Puerto Rico.

CARNEGIE CORPORATION THROUGH THE CARNEGIE FOUNDATION FOR THE ADVANCEMENT OF TEACHING:

$3,500 in support of work on revision of the cumulative personal record form and related materials under the direction of the Committee on Measurement and Guidance.

STAFF APPOINTMENTS

Howard Y. McClusky, professor of educational psychology at the University of Michigan, has been appointed associate director of the American Youth Commission to direct rural projects and assist in general administration of the program of the Commission. Dr. McClusky has been closely associated with the adult education program of the W. K. Kellogg Foundation.

Lyle M. Spencer, director of Science Research Associates of Chicago, is working with Paul T. David, associate director for research of the American Youth Commission, on a study of youth employment and unemployment. Lewis L. Lorwin, formerly with the International Labor Office and the Brookings Institution, is making a study of the work program of the

National Youth Administration, assisted by Arthur Wubnig, who is on leave from the Maritime Labor Board.

Margaret L. Plunkett has been named research associate on the staff of the Youth Commission. Dr. Plunkett was formerly with the Industrial Relations Section of the Department of Economics and Social Science of Massachusetts Institute of Technology.

Maurice L. Troyer has joined the staff of the Commission on Teacher Education as associate in evaluation. Dr. Troyer came to the Commission from Syracuse University where he was associate professor of education.

Hugh B. Johnson is working with the Council's Committee on School Plant Research and the Interstate School-Building Service of George Peabody College for Teachers. Mr. Johnson is located in the National Bureau of Standards in Washington where he is analyzing and preparing performance tests and specifications for school equipment. He is on leave from the Bureau of School Buildings of the Rochester Public Schools.

Commission on Teacher Education

Two new members have been named to the Commission on Teacher Education of which Payson Smith, Harvard University, is chairman:

Mildred English, superintendent of the Peabody Training School at Georgia State College for Women, Milledgeville, Georgia
Helen Hay Heyl, chief of the Bureau of Curriculum Development, New York State Education Department, Albany, New York

State Programs in Teacher Education

A series of state-wide programs designed to contribute to the improvement of teacher education throughout the United States has been initiated in New York, Michigan, and Georgia by the Commission on Teacher Education of the Council, under the direction of Karl W. Bigelow.

These studies are being undertaken with the support made

possible by a special grant of $168,000 received from the General Education Board. They will represent an additional step in the Commission's program for the cooperative improvement of teacher education. The decision to allocate funds for the conduct of the studies followed the request of educators in the various states calling attention to particular problems and together offering a diverse approach to the national problem itself. In each instance a representative group of educators within the state will plan and supervise the program.

The New York program will be sponsored by the Association of the Colleges and Universities of the State of New York and carried out under a committee headed by Edmund E. Day, president of Cornell University. Harold E. B. Speight, formerly dean of Swarthmore College, has been appointed coordinating officer. Special attention will be paid to problems resulting from the recommendations of the recent Regents' Inquiry into the Character and Cost of Public Education in New York and from new educational requirements for elementary and secondary school teachers, in each case calling for an additional year of instruction.

In Michigan the recent enactment of a law giving the Board of Education complete control of the certification of teachers makes the study unusually timely. The work will be sponsored by a special committee appointed by the Michigan State Department of Education, with Eugene B. Elliott, state superintendent of public instruction, as chairman. H. L. Turner, formerly of the Michigan State Normal College, has been appointed coordinating director.

The Georgia study, sponsored by the State Education Department's Advisory Committee on Teacher Education and Curriculum, will be under a special committee headed by M. E. Thompson, state director of teacher education in Georgia, who will also act as executive secretary. It will place particular emphasis on the development of leadership for improving teacher education with respect to child growth and development. Two-thirds of the expenditure will be devoted to study

of the needs of white teachers and one-third to those of Negroes.

Conference on Secondary School Curriculum

The American Youth Commission of the Council held a conference in Washington on March 16 and 17 to consider desirable changes in secondary school programs to bring them more in line with present day social and economic requirements. Members of the conference which Floyd W. Reeves, director, called included:

Thomas H. Briggs, Teachers College, Columbia University
Will French, Teachers College, Columbia University
Ben G. Graham, Pittsburgh Public Schools
Oscar Granger, Haverford Township High School
Edwin A. Lee, Teachers College, Columbia University
Charles A. Prosser, Dunwoodie Institute, Minneapolis
Francis T. Spaulding, Harvard University
Alexander J. Stoddard, Philadelphia Public Schools
George D. Strayer, Teachers College, Columbia University
Willis A. Sutton, Atlanta Public Schools
Ralph W. Tyler, University of Chicago

Charles H. Judd, director of the education program of the National Youth Administration, and Layton S. Hawkins, chief, Trade and Industrial Education Service of the United States Office of Education, also participated. Dr. Judd will prepare a report for the next meeting of the conference over which Superintendent Graham will preside.

Conference of Boards of Examiners

Members of boards of examiners in a number of large city school systems recently requested President Zook to call a meeting of representatives who are responsible for examining candidates for teaching positions. A conference has been scheduled in Washington, D. C., on April 4 and 5, 1940, to discuss possible methods of cooperation among various school systems. The following cities have indicated that they will send delegates:

Baltimore	New York City
Boston	Philadelphia
Detroit	Pittsburgh
Washington, D. C.	Providence

Junior College Study

The American Association of Junior Colleges has received a grant of $25,000 from the General Education Board to finance a series of exploratory studies in the general field of terminal education in the junior college. Approximately 500 accredited junior colleges are now operating in the United States besides another hundred which are not yet thus recognized. It is anticipated that the exploratory study will reveal the need and the opportunity for a series of additional studies and experimental investigations and demonstrations which may cover several years of continuous effort.

President Zook is a member of the sponsoring committee for the study, and Walter Crosby Eells, who served as coordinator for the Cooperative Study of Secondary School Standards for which the Council acted as disbursing agent, is director.

Publications

The Council has recently issued several new publications:

Reading in General Education: An Exploratory Study, edited by William S. Gray. This 480-page book prepared by eleven reading specialists is the report of the subcommittee on reading in general education. It summarizes the best that is known about reading at the high school-junior college level and suggests desirable research. $2.50 a copy.

The Eighth Yearbook of School Law, edited by M. M. Chambers. The 1940 edition of the compilation of legal decisions in the higher courts involving education includes 17 chapters and 3 appendices by experts on school law. It is now accepted as the standard reference in the field. $1.00 a copy.

Wanted: A Job! prepared by a conference of business and industrial personnel officers under the chairmanship of Edward

C. Elliott, president of Purdue University. This 20-page pamphlet for college students attempts to describe personal characteristics which are desired by employers. 5¢ a copy; discounts on quantity orders.

Manual of Teachers College Accounting, by Edward V. Miles, Jr. This 200-page book, prepared for the Financial Advisory Service of the Council and the American Association of Teachers Colleges, deals particularly with accounting procedures in teachers colleges but is also valuable for other institutions of higher education. $2.50 a copy.

Auditing of Colleges and Universities, by J. Harvey Cain. No. 17 in the "Studies" of the Financial Advisory Service discusses detailed auditing procedures and accounting principles in colleges and universities. 50¢ a copy.

Conferences and Meetings

Since January 1, 1940, the Council has been represented by its executive officers at the following national meetings:

American Association of Junior Colleges, Columbia, Missouri
American Association of School Administrators and affiliated meetings, St. Louis, Missouri
Association of American Colleges, Philadelphia, Pennsylvania
Council of Guidance and Personal Associations, Washington, D. C.
Methodist Education Association, Philadelphia, Pennsylvania
Schoolmen's Week, Philadelphia, Pennsylvania
White House Conference on Children in a Democracy, Washington, D. C.

A Note Regarding the 1939 Psychological Examinations

For a number of years the April issue of The Educational Record has included the national report on the use of the American Council on Education Psychological Examinations. These norms have been prepared annually by Dr. and Mrs. L. L. Thurstone, co-authors of the tests.

This year for the first time the report is not printed in The Educational Record. Because of the increased number of forms of the test and the consequent length of the statistical tabulations, and because of the special audience which is concerned with the report, the materials on the 1939 psychological examinations will be issued in the "Studies" series of the Council. The report will be available early in May.